THE AMERICAN ELEVATOR AND GRAIN TRADE

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VOL. XLI | 431 South Dearborn Street, Chicago, Ill., September 15, 1922 | NO. 3

WE ARE **PROGRESSIVE** ENOUGH TO BE **AGGRESSIVE** FOR YOU

McKENNA & DICKEY

Grain

60 BOARD OF TRADE

CHICAGO

For your Business Sake Communicate

GOUDY MAYFIELD HERBERT McNAMEE

Consign Grain and Hay to

MAYFIELD & COMPANY

GRAIN—HAY—STOCKS—BONDS—PROVISIONS

116 W. Monroe Street 332 So. La Salle Street

CHICAGO

Consignments Sales to Arrive Track Purchase

FEED SYSTEM ENGINEERING

FEED FORMULAS CONSULTATION

That have shown the following production:

An average increase of over one-half gallon of milk on an entire herd.

Development of baby pigs showing an increase of six times their weight in eight weeks.

A gain of four pounds a day for ten days on hogs. An increase in egg production over ordinary farm grains of 200%.

Seventy percent increase in egg production in 20 days, including an increase in weight of eggs per dozen.

Increase in poultry fattening of as much as a half pound in four days, and a pound gain in a week.

S. T. EDWARDS & CO. 110 So. Dearborn Street, CHICAGO

Transit Leaks

are unknown to the grain shippers who use

KENNEDY Car Liners

Enormous Increased Sales prove the Efficiency, Merit and Serviceability of these liners.

The Kennedy Car Liner

is the only device offered the grain shipper that makes a car Leak-Proof. Cheap — Modern — Profitable. *Write now for particulars.*

THE KENNEDY CAR LINER & BAG CO.
Shelbyville, Indiana, U. S. A.

THE ILLINOIS SEED CO.

GRASS SEEDS FIELD

BUYERS CHICAGO SELLERS

Ask for Samples *Mail Samples for Bids*

TIMOTHY, CLOVERS, ALSIKE, ALFALFA, MILLETS, RED-TOP, BLUEGRASS, SEED GRAIN, GRAIN BAGS, Etc.

J. A. BENSON COMPANY

Receivers and Shippers

HAY, STRAW, GRAIN AND MILL FEEDS

Room 904
Postal Telegraph Bldg. CHICAGO, ILL.

McKINNEY & WILSON

GRAIN BROKERS

Produce Exchange Building, New York

EXPORT AND DOMESTIC

WHEAT, CORN, RYE, OATS, BARLEY

We want your offers:

Cif Buffalo, Bay Ports,
Track Atlantic Seaboard Ports
Fob Atlantic and Gulf Ports

We Are Strictly Brokers

COURTEEN SEED CO.

Specialize in all

GRASS AND FIELD SEEDS

SHIPPERS. Send Samples for Bid.
BUYERS. Ask for samples and prices.

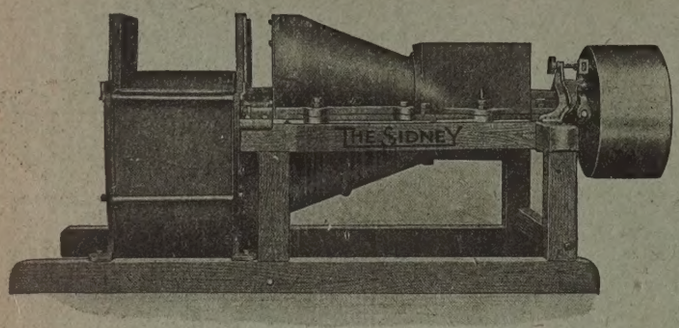
MILWAUKEE, WISCONSIN

Hamilton's Levator Belting Is Good Belting

Write us for samples and prices

HAMILTON RUBBER MFG. CO.

118 So. Clinton Street, Chicago



The Sidney Combined Sheller and Boot

The Sidney Combined Sheller and Boot without take-ups on boot is a combination of the regular Sidney Sheller and Standard Cast Iron Elevator Boot requiring no expensive hoppering and eliminates deep tank or pit under elevator. It is guaranteed to work successfully on corn in any condition.

Other Specialties for the Grain Trade Are:

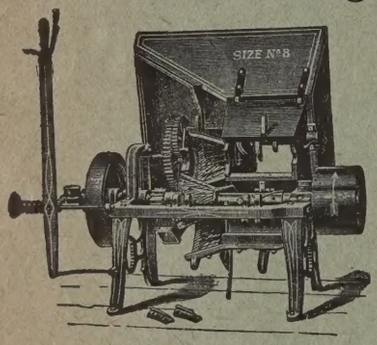
The Sidney Double Shoe Corn and Grain Cleaner
The Sidney Ball Bearing Safety Man Lift
The Sidney Style B Grain Drag

We Furnish Complete Grain Elevator Equipments

Send for Catalog

THE SIDNEY GRAIN MACHINERY CO.
SIDNEY, OHIO

Make Feed Grinding More Profitable!



Bowsher's "Combination" Mills do this

Because their **large capacity, cone-shaped grinders** and **positive self ear feeders** are properly designed to direct **every ounce** of power energy to the **actual reduction** of the grain.

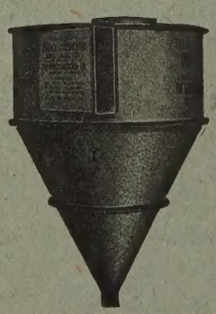
Crush and **Grind** ear corn, husked or unhusked, alone or mixed with any kind of **small grain** in any desired proportion. Reduce the material to any fineness desired for feeding purposes.

11 Sizes, 2 to 25 H.P.

Sold with or without **Sacking Elevator.**

The N. P. Bowsher Co., South Bend, Ind.

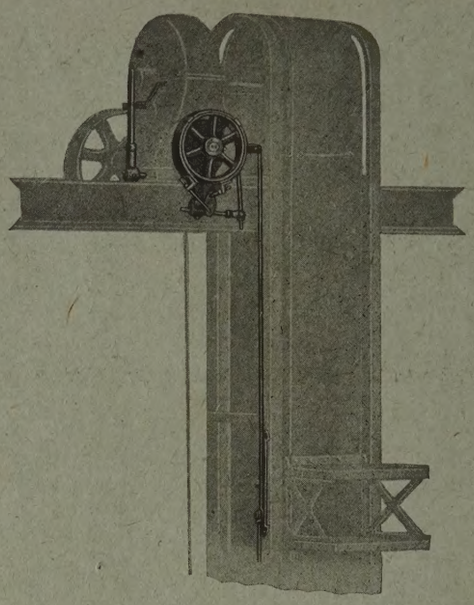
The "Knickerbocker Cyclone" Dust Collector



For Grain Cleaners
ALL STEEL

Write for Catalog

The Knickerbocker Company **Jackson, Mich.**



N. & M. CO. SERVICE ELEVATOR WITH

AUTOMATIC SAFETY DEVICE

WITH the upper terminal automatic stop in operation there is no danger of being carried overhead and injured. The weight of the passenger after the top floor is reached automatically throws a lever, shutting off the power and applying the brake, thereby locking the belt and steps against movement in either direction.

The automatic stop mechanism furnished with the Nordyke & Marmon Company service elevator adds the vital feature of safety to the elevator's other excellent qualities of reliability and utility.

Send for Service Elevator Circular.

NORDYKE & MARMON COMPANY
Established 1851
INDIANAPOLIS INDIANA

AMERICA'S LEADING MILL BUILDERS

WESTERN SERVICE

LIKE WESTERN Shellers and Cleaners and Complete Elevator Equipments RANKS FIRST

Read customer's letter proving this statement

OTIS J. BEAR
JOHN J. GRUSSING

Elevators
Royal—C. & E. I. R. R.
St. Joseph—Big Four

BEAR & GRUSSING
GRAIN, COAL, SEEDS

Union Iron Works,
Decatur, Ill.

St. Joseph, Ill., Feb. 10, 1922.

Gentlemen:

We certainly appreciate the quick service given on our order for transmission rope yesterday morning. Ten years of observation leads us to believe that no other concern dealing in elevator machinery and supplies can come anywhere near equalling your courtesy and service to your customers.

Yours truly,
BEAR AND GRUSSING,
Per Otis J. Bear.

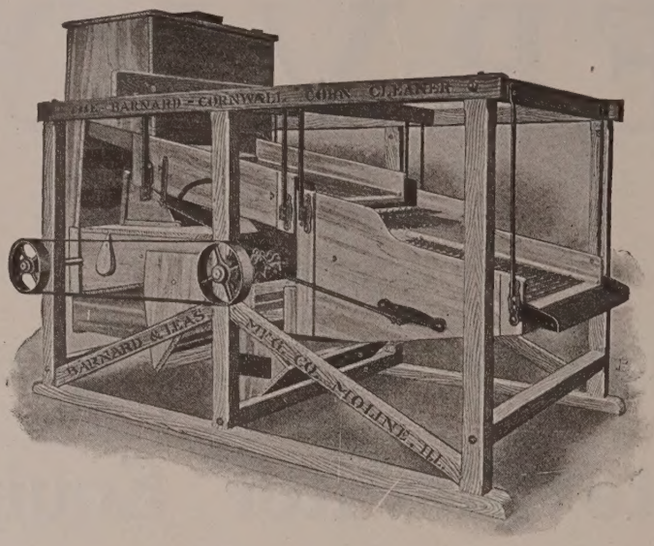
Let us extend this service to you

Drag Chains
Elevator Buckets
Elevator Boots
Turn Heads
Power Shovels
Grain Conveyors
Belting
Feed Gates
Distributors
Manlifts
Car Loading Spouts
Car Pullers
Iron Pulleys
Elevator Heads
Idlers
Trippers
Post Hangers
Pillow Blocks
Shafting

UNION IRON WORKS

DECATUR : : ILLINOIS

Write for Catalog No. 27



30 Years' Continuous Service and Still Going Good

Such remarkable records of service now being reported to us by users is proof positive that the Barnard-Cornwall Corn Cleaner, shown above, with its Patented Finger Sieve to prevent choking is the Best, most Durable and Economical corn cleaner on the market today.

It can be used not only as a corn cleaner, but as a first cleaner for other kinds of small grain such as wheat, oats, barley, etc., by changing the sieves, which makes it a very good receiving separator.

When desired it can be constructed with a cockle or sand sieve for removing mustard and other small seeds, sand, etc.

The machine is dustless, light running and durable, never clogs, saves the screenings for feed and cleans the grain thoroughly in one operation.

Let us quote on your requirements. We have been building corn shellers and cleaners for sixty-two years, and make a style and size for every corn and feed mill requirement.

BARNARD & LEAS MFG. CO.

MILL BUILDERS AND MILL FURNISHERS

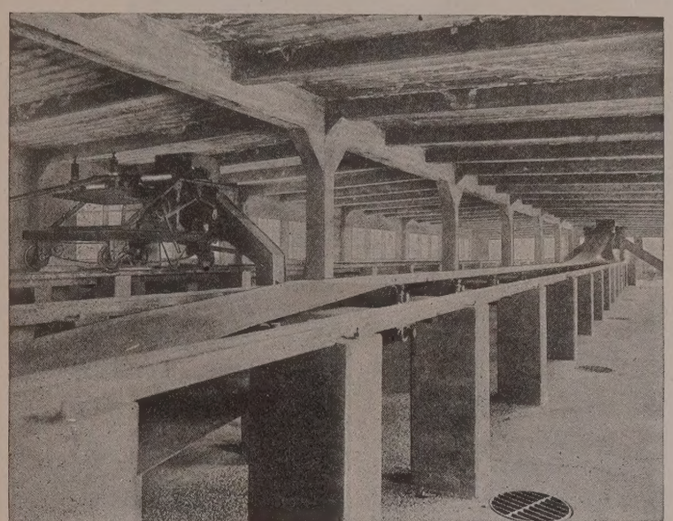
ESTABLISHED 1860. MOLINE, ILLINOIS, U.S.A.

WELLER EQUIPMENT

The Better Kind of Grain Handling Machinery

Installed in your elevator will help you to operate at full capacity. Frequent shut downs and waiting for repairs dissipate your profit. Weller Made Machinery is made by men who know its application and the conditions under which it is to operate—it proves its merit because quality is built into it.

You owe it to yourself when building or making repairs to get our prices.

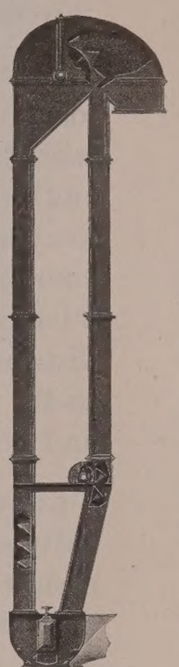


WELLER BELT CONVEYORS AND TRIPPERS

We make a complete line of:

Apron Conveyors	Elevator Spouts
Belt Conveyors	Loading Spouts
Drag Conveyors	Dock Spouts
Pan Conveyors	Chain
Mixing Conveyors	Grain Cleaners
Spiral Conveyors	Grain Driers
Trippers	Truck Dumps
Bucket Elevators	Wagon Dumps
Elevator Buckets	Track Hoppers
Elevator Boots	Power Shovels
Elevator Casing	Car Pullers
Elevator Heads	Rope Drives
Sack Elevators	Gears

Power Transmitting Machinery
Coal and Ash Handling Machinery



CATALOGUES

Tell us the kind of equipment you are interested in. Catalogue showing illustrations also giving data that will help in making your selection will be sent. Experienced engineers are also at your service.

SAVES $3408 A YEAR

HANDLING COAL WITH WELLER MADE EQUIPMENT

M. J. Cahill & Co., Boston, Mass., says:—

Our Weller Bucket Elevator has proved the finest system of handling our coal. With this equipment we unload a 50-ton car in less than two hours; in the past month and a half it has handled 50 cars of coal and on the average it will handle about 12,000 tons or 240 cars a year.

Coal arrives at our yard in hopper-bottom cars, from which it is dropped into a hopper beneath the track. From this hopper it is fed by a reciprocating feeder into a boot—and the Weller Buckets turn into this boot, take the coal out and elevate it about 35 feet to a trough from which it goes to various bins through 5 chutes. This system causes no breakage of coal, and we handle nut, egg, stove, soft, and pea coal.

Formerly, we used a portable belt conveyor. This method necessitated loading our wagons by hand and required trimming at the bin, both running into considerable expense. In fact, our figures show a cost of $19.20 a car or $0.3840 per ton for handling with the belt conveyor, while with our Weller System our cost is only $5.00 per car or $0.10 per ton. A saving each year as a result of the Weller installation of $3,408. No trimming is necessary with this equipment.

Our Weller Bucket Elevator has been satisfactory in every way. It has given no trouble—and the dealer service could not be improved. It is economical to operate and the machine is constructed of heavy material that wears. Everything is sturdy and well built.

IF YOU HAVE A COAL OR MATERIAL HANDLING PROBLEM, WRITE US

WELLER MFG. CO.

Main Office and Works, 1820-1856 N. Kostner Ave. Chicago, Ill.

SALES OFFICES:

NEW YORK BOSTON BALTIMORE PITTSBURGH CLEVELAND SALT LAKE CITY SAN FRANCISCO

Indianapolis—Your Market

Indianapolis is known as the largest inland railroad city in the country and is the natural destination for shipments of grain from Indiana, Illinois, Ohio, Michigan, Wisconsin and states adjoining.

Its geographical location together with its railroads radiating to all sections of the country, makes it a logical outlet and distributing point to the East, South and Southeast.

These splendid railroad facilities assure quick handling of shipments with prompt returns on same.

Indianapolis also takes a natural pride in having the largest corn mills in the country which, together with its flour mills and vast array of manufacturing industries, creates an exceedingly large local consumption of wheat, corn, oats, rye and hay annually.

The Indianapolis Board of Trade

This local and foreign demand makes for top prices on all shipments.

The market's adequate weighing facilities, its efficient inspection department, and increased elevator storage and drying equipment makes Indianapolis more and more important each season as a market for shippers and buyers of grain, hay and feeds.

Route your grain and hay to any of the following firms, all devoted to your interests and all members of the

INDIANAPOLIS BOARD OF TRADE

BERT A. BOYD GRAIN CO., Grain Commission

BINGHAM GRAIN COMPANY, Grain Merchants

CLEVELAND GRAIN & MILLING CO., Grain Commission

P. M. GALE GRAIN CO., Grain, Feed

H. E. KINNEY GRAIN CO., Receivers and Shippers

STEINHART GRAIN COMPANY, Grain Commission

FRANK A. WITT, Grain Commission and Brokerage

URMSTON & SON, INC., Grain Commission

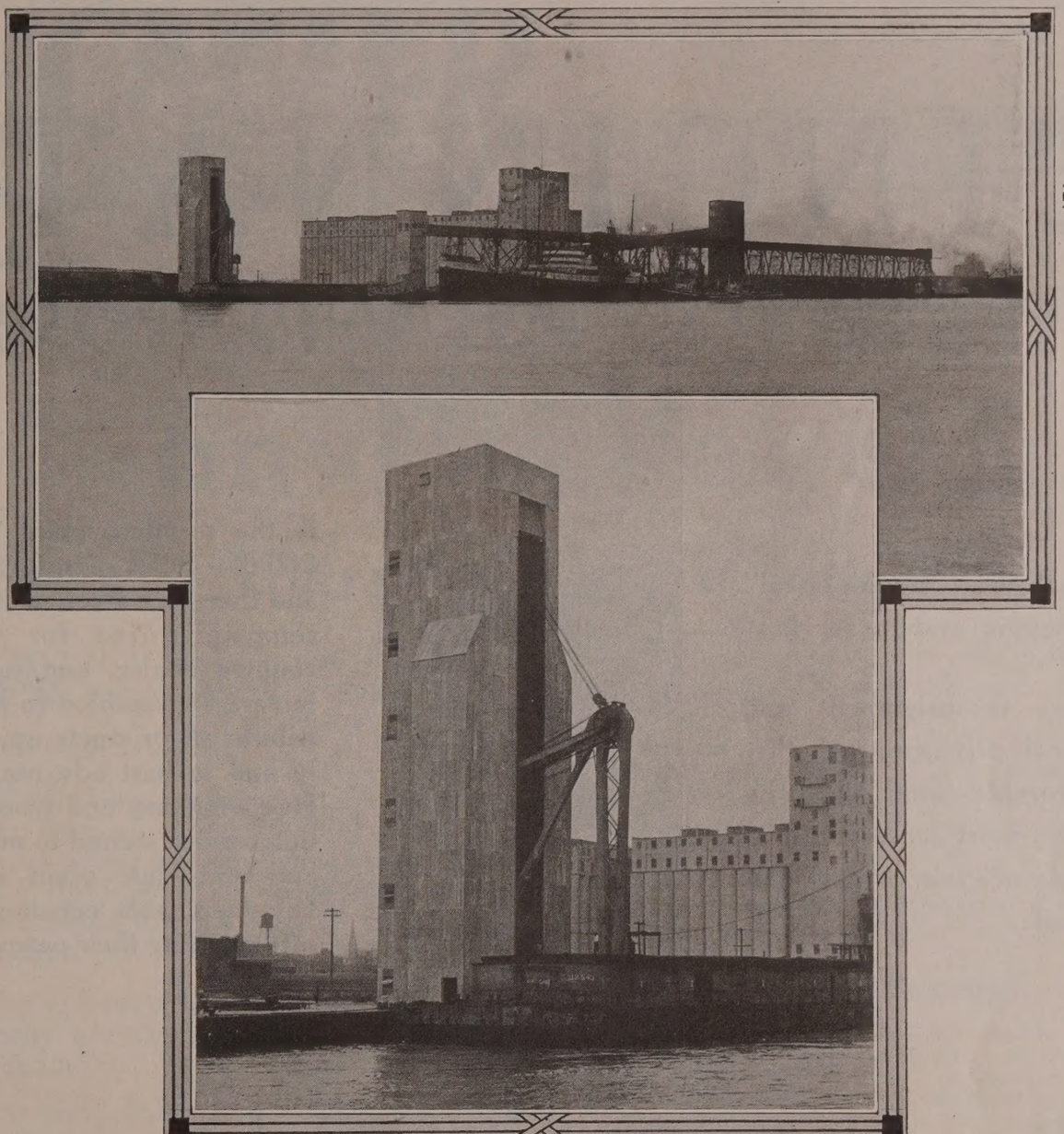
LAMSON BROS. & CO., Grain, Seeds

LEW HILL GRAIN CO., Strictly Commission

McCARDLE-BLACK CO., Grain Merchants

THE EARLY & DANIEL CO., Grain Commission Merchants and Buyers

HEINMILLER GRAIN CO., Receivers and Shippers



New Marine Leg for the Board of Commissioners of the Port of New Orleans Public Grain Elevator

In 1917 when the Board of Commissioners built the 2,600,000 bushel elevator at the port of New Orleans, WEBSTER GRAIN ELEVATOR EQUIPMENT was installed. Again in 1921 when additional machinery was necessary to handle the increased business WEBSTER EQUIPMENT was specified.

WEBSTER MACHINERY in this elevator, as well as in many of the largest grain elevators of this country, gives proof that it stands the test of service. It is good machinery built to a quality standard.

Let our organization select suitable equipment to meet your particular requirements.

THE WEBSTER MFG. COMPANY

4500-4560 CORTLAND ST., CHICAGO

Factories-Tiffin, O. *and* Chicago – Sales Offices *in* Principal Cities

CINCINNATI

THE GATEWAY TO THE SOUTH AND EAST

Has the "square deal" plugging system for hay.

Has reconsignment and transit privileges and other favorable points which insures most successful handling of grain or hay shipments.

Home of the Cincinnati Grain and Hay Exchange

Is the terminal point for 200,000 miles of railways and therefore a convenient shipping point for the country dealer, and local buyers are enabled to distribute all products quickly and to best advantage. Has weighing and inspection service second to none and up-to-date grain and hay merchants constantly safeguarding their patrons' interests.

Those are just a few of the reasons why you should ship your Grain and Hay to Cincinnati. Ship to any of the following responsible grain and hay firms, all members of the

Cincinnati Grain & Hay Exchange

DE MOLET GRAIN CO., Grain and Hay

T. M. DUGAN & CO., Hay and Grain

CLEVELAND GRAIN & MILLING CO., Grain

CURRUS GRAIN CO., Grain and Hay

MUTUAL COMMISSION COMPANY, Strictly Commission

EARLY & DANIEL CO., Hay, Grain, Feed

FITZGERALD BROS. CO., Grain and Hay

THE McQUILLAN CO., Grain, Hay, Feeds

BINGHAM-SCHOLL GRAIN CO., Grain Exclusively

PERIN, BROUSE, SKIDMORE GRAIN & MILLING CO., Grain, Hay, Feed

CARTER DISC SEPARATOR

Don't Pay Freight on Dockage!

Keep it Yourself—Turn it into Money

WHEN you ship dockage you lose in two ways—the freight you pay on it and the income you might have from selling it.

Official Grain Inspection figures will show you that in every 100,000 bushels of spring wheat you ship, you pay the freight on 5,100 bushels of dockage! And you get nothing for this valuable elevator by-product!

Why not save this big yearly freight bill—why not make an extra profit on this dockage?

You can clean your wheat absolutely dockage free with a small, compact machine that takes up only a few feet of floor space, the Carter Disc Separator.

This clean separation is accomplished in one run through, without any wheat lost in the tailings—another big saving. Furthermore, the action of the discs scours the wheat, increasing its test weight.

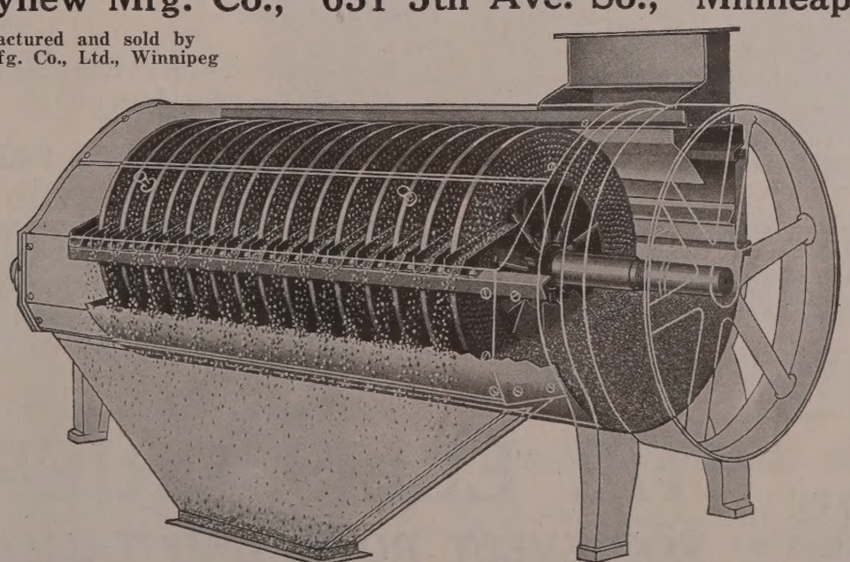
No matter what cleaning machinery you now have, **you need the Carter Disc Separator in your main stream**—if you want reduced costs and extra profits.

Try it at Our Expense

We will ship you a Carter Disc Separator suited to your needs with the understanding that if, after a reasonable trial, it is not satisfactory to you in all respects, you may return it at our expense. You can't lose on that proposition—**unless you neglect to act on it!** Write at once for full information.

Carter-Mayhew Mfg. Co., 631 5th Ave. So., Minneapolis, Minn.

In Canada, Manufactured and sold by
The Strong-Scott Mfg. Co., Ltd., Winnipeg



ACKNOWLEDGED FACTS ABOUT —THE— ELLIS DRIER

ELLIS DRIER PLANT AT THE SOUTHWESTERN MILLING CO., KANSAS CITY, KAN.

The above plant which was designed by A. E. Baxter Engineering Company, Buffalo, N. Y., is without question one of the most complete of its kind.

The driers are of the very latest continuous feed type having independent motor controlled feed and variable feeding device.

The control of the feed is so perfect that a range in capacity of 10 bushels to 1,000 bushels per hour is possible.

The collection of all objectionable dust is provided for by a complete dust collecting system installed as a part of the driers.

This is a new patented feature developed by the Ellis Drier Company, and has met the unqualified approval of the owner and underwriter alike.

DURING the past 25 years in which the Ellis Drier has been on the market, certain well developed characteristics of the drier have been noticed and acknowledged by the user time and time again. We refer to the splendid condition of the grain after being processed in any Ellis Drier.

The following extracts taken from unsolicited letters of commendation will bear out our point:

¶ "The corn is in elegant condition and comes out as natural as it went in."

¶ "It would be impossible for the inspector let alone the ordinary buyers of grain to tell it had gone through the drier."

¶ "Your system is head and shoulders over other methods and enables us to furnish well dried corn so natural in appearance that an expert would find difficulty in distinguishing one from the other."

¶ "Corn dried by other methods is dull looking and mealy while ours is bright, clean and the natural lustre is retained making it more desirable and usable for any purpose."

¶ "We would also like to mention the fact that grain after being dried in any Ellis Drier shows up in much better condition than grain dried in any other driers that we have seen."

¶ "Corn dried with an Ellis does not break up anything like as bad as when dried with the ————."

In the light of the Federal grain grades which exact severe penalty for cracked, discolored and blistered grain, these "acknowledged facts" cannot be lightly thrown aside, on the contrary, they become the very basis on which all driers should be compared and purchased.

SPECIFY THE ELLIS

IT WILL NOT CRACK, BLISTER, OR DISCOLOR THE GRAIN

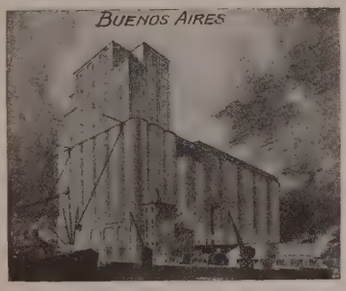
THE ELLIS DRIER CO.

ROOSEVELT ROAD AND TALMAN AVE.

CHICAGO, U. S. A.

John S. Metcalf Co.

Grain Elevator Engineers



OFFICES

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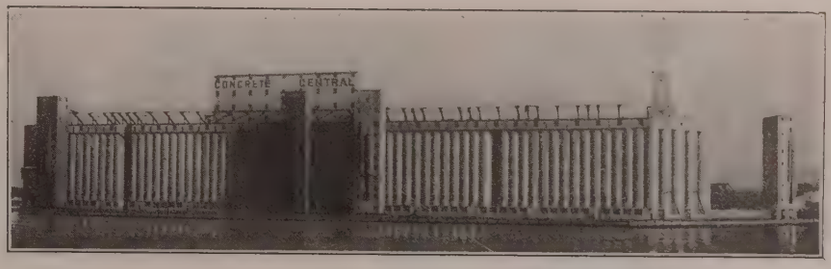
395 Collins St., Melbourne, Australia.
639 Calle Maipu, Buenos Aires, Argentina.

MONARCH

Built Elevators
Assure You
Economical Design
First Class Work
Efficient Operation
and
Satisfaction
Let Us Submit
Designs and Prices

One of the Modern Houses Which Has Made a Record for Rapid and Economical Handling

CONCRETE CENTRAL, BUFFALO, 4,500,000 Bu.



MONARCH ENGINEERING CO. - - - BUFFALO, N. Y.

The Barnett & Record Company

GENERAL CONTRACTORS

Designers and Builders of

Grain Elevators, Flour Mills and Heavy Structures

Reinforced Concrete and Steel Ore Dock constructed at Superior, Wisconsin, for the Allouez Bay Dock Company. Entirely Fireproof.

Write for Designs and Estimates

OFFICES:

Minneapolis, Minn. Duluth, Minn. Fort William, Ontario

MACDONALD ENGINEERING CO.

CONSTRUCTING ENGINEERS

New York 90 West St. | Chicago 53 W. Jackson Blvd. | San Francisco 149 California St.

DESIGNERS AND BUILDERS OF GRAIN ELEVATORS, FLOUR MILLS, WAREHOUSES, COLD STORAGE PLANTS, COAL STORAGE, ETC.

SEND US YOUR INQUIRIES

400,000-BUSHEL ELEVATOR

BUILT FOR

POSTUM CEREAL CO., BATTLE CREEK, MICH.

"THERE'S A REASON"

FOLWELL-AHLSKOG CO.

Engineers and Contractors

Designers and Builders

OF

Grain Elevators, Flour Mills, Industrial Plants, and other Engineering Works

PENNSYLVANIA RAILROAD COMPANY ELEVATOR, ERIE, PA.

1,250,000-bushel Concrete Workinghouse and 25,000-bushel Marine Tower. Reinforced Concrete. Latest improvements. Write us for designs and estimates.

323 N. MICHIGAN AVE., CHICAGO, ILL.

LEONARD CONSTRUCTION COMPANY

37 So. Wabash Ave., Chicago — DESIGNERS AND CONSTRUCTORS — 51 Maiden Lane, New York, N. Y.

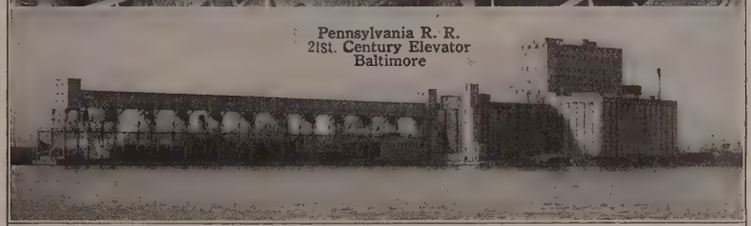
BUILT IN 1920 — MEMPHIS, TENN., PLANT OF THE QUAKER OATS COMPANY — WE INVITE YOUR INQUIRIES

FEGLES CONSTRUCTION CO., LIMITED

ENGINEERS—CONTRACTORS GENERAL OFFICES: MINNEAPOLIS AND FORT WILLIAM

SPECIALIZING in the construction of fire-proof grain elevators of advanced design. We are prepared to build anywhere. The following are now building:

STATE OF NEW YORK—BROOKLYN, 2,000,000 BU. ELEVATOR AND SHIPPING GALLERIES. (ILLUSTRATION.)
STATE OF NORTH DAKOTA—GRAND FORKS, 2,000,000 BU. ELEVATOR AND 3,000 BBL. MILL.
ARCHER DANIELS LINSEED CO., BUFFALO, ¾ MILLION BU. ELEVATOR AND A REAL MARINE TOWER.
PILLSBURY FLOUR MILLS CO., ATCHISON, KAN., ¾ MILLION BU.—FINEST MILLING ELEVATOR IN AMERICA.
N. M. PATERSON & CO., LTD., FORT WILLIAM, ONT., ¾ MILLION BU. STORAGE.



JAMES STEWART & COMPANY, Inc.

1210 Fisher Bldg. Chicago, Ill.

Designers and Builders Grain Elevators

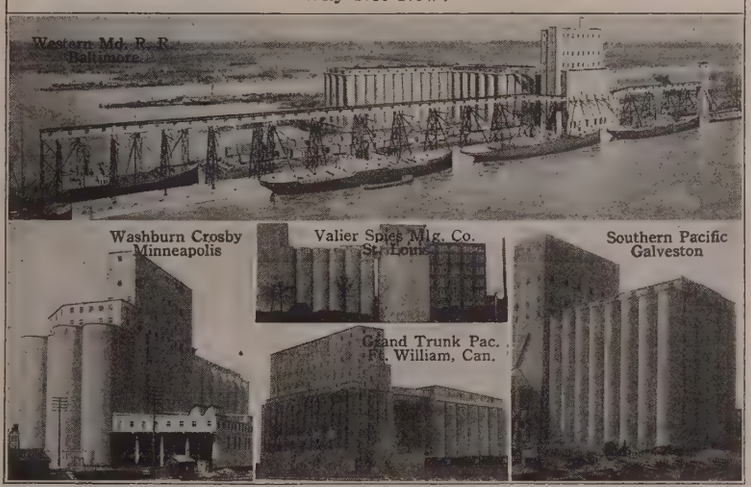
In all parts of the world

W. R. SINKS Manager

READER!

We have built for many of your friends. Eventually we will build for you.

Why Not Now?



L. A. STINSON CO.

Engineers and General Contractors

ELEVATORS, MILLS AND WAREHOUSES COMPLETE

National Life Building **Chicago, Ill.**

General Overhauling and Improvements

P. F. McALLISTER & CO.

CONTRACTORS - DESIGNERS

Grain Elevators **Ear-Corn Plants**

COMPLETE

Locust Street Viaduct **Bloomington, Ill.**

TOWNSEND B. SMITH

Designer and Builder of Grain Elevators

DECATUR, ILL.

THE POLK SYSTEM

All-steel machines for all kinds of

CIRCULAR CONCRETE CONSTRUCTION

We contract grain storages, water towers and coal pockets.

Polk-Genung-Polk Company

521 Occidental Bldg., Indianapolis, Ind. Fort Branch, Indiana

Reliance Construction Company

Furnish Plans, Estimates and Build COUNTRY GRAIN ELEVATORS

Our long experience as a builder of elevators insures you an up-to-date house. Write today.

Board of Trade Building, **INDIANAPOLIS, IND.**

Burrell Engineering & Construction Co.

Designers of Grain Elevators, Flour Mills and Associated Buildings

327 South La Salle Street **Chicago, Ill.**

Grain Elevators Flour and Feed Mills Warehouses

Reinforced Concrete Grain Elevator erected by us for The Wright Milling Co., Bluefield, W. Va.

"The First Cost the Last"

You eliminate future costly changes and expensive annual repairs when you have our experienced Elevator Builders handle your work. And you will get a plant combining the maximum efficiency in operation at a lower cost than any other way.

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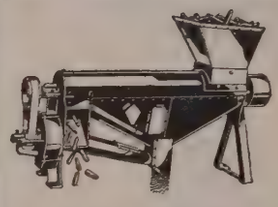

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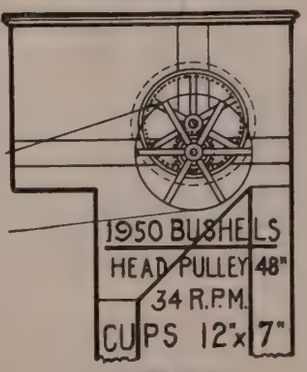

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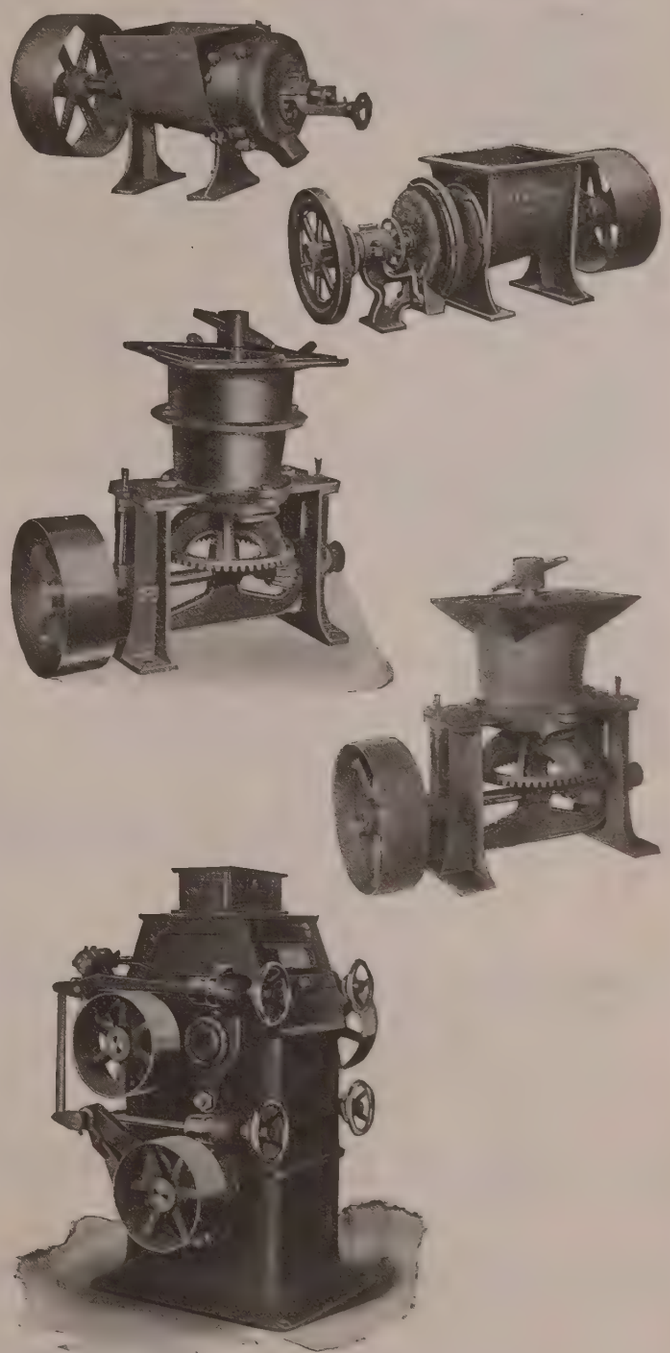

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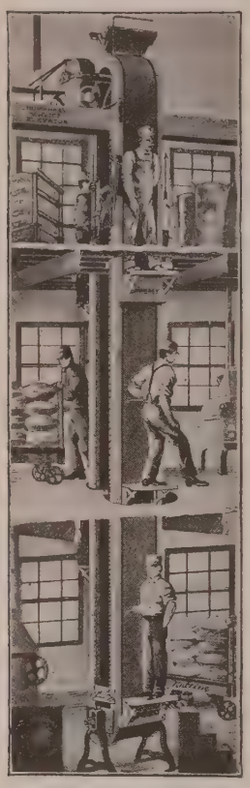

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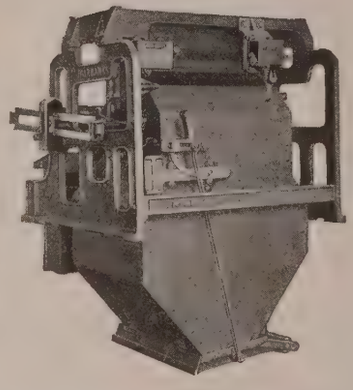

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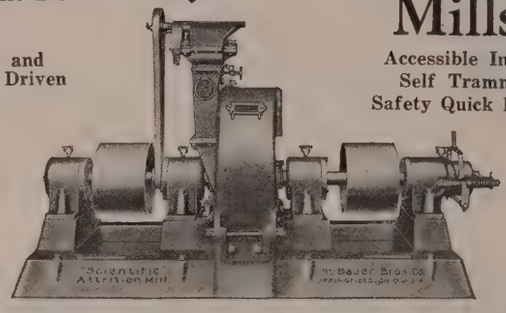

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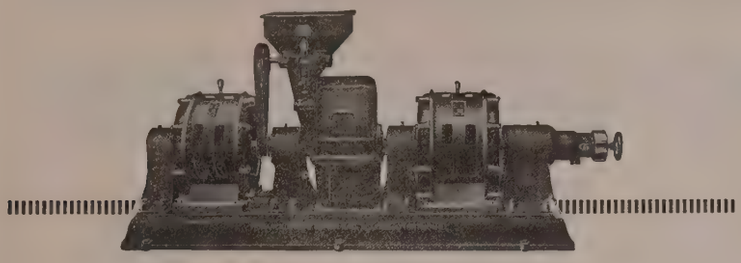

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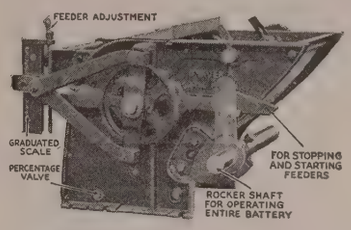

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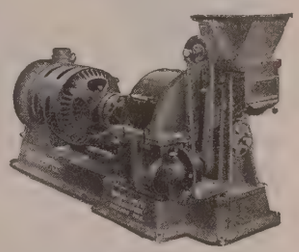

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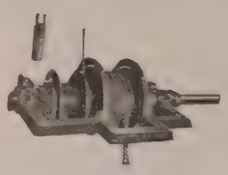

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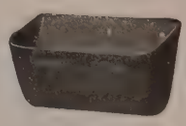

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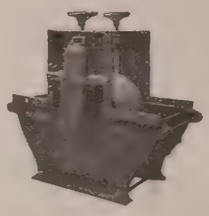

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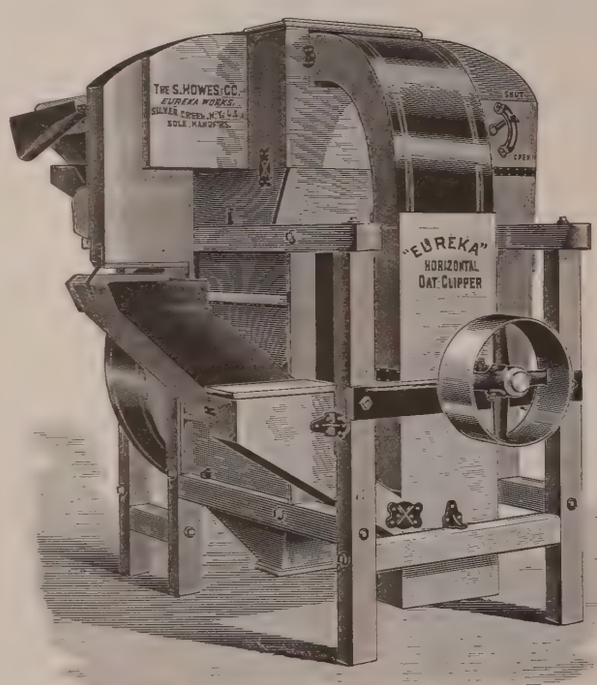

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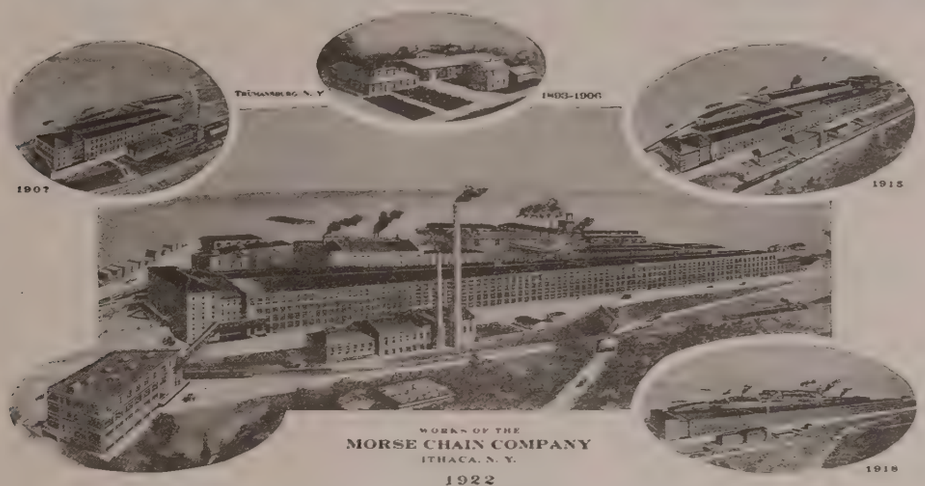

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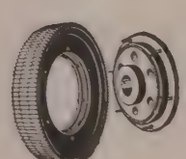
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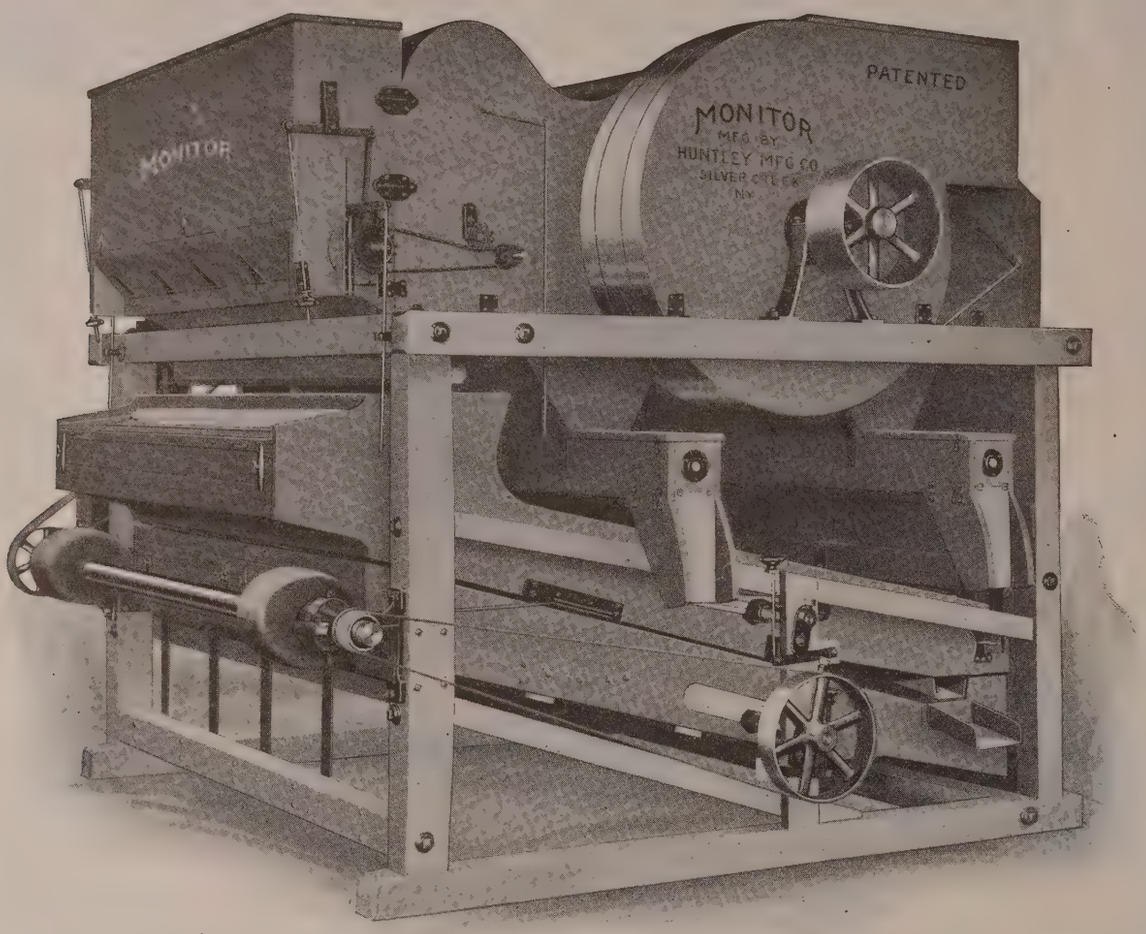

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VOL. XLI CHICAGO, ILLINOIS, SEPTEMBER 15, 1922 NO. 3

Dedication Ceremonies of Gowanus Bay Elevator

New State-Owned Elevator in New York Harbor, Formally Opened by Governor Miller—Julius H. Barnes Gives Impressive Address

A HIGHLY important addition to the grain trade facilities of New York City, and in fact, to all of the trade in a position to make use of the wonderful transportation facilities afforded by the great Erie Barge Canal, has been completed, bringing to fruition the many years of struggle and endeavor on the part of the local advocates of an enlarged canal and an adequate grain elevator at this important terminal. The big elevator on Gowanus Bay, South Brooklyn, on the shore of the main channel of New York Harbor, is ready for business. As a preliminary test of the new machinery, a vessel containing 50,000 bushels of wheat was handled last month.

The State Barge Canal Elevator was formally opened Friday, September 1, with ceremonies commensurate with such a highly important accomplishment. Lieutenant Governor Jeremiah Wood, who is at the head of the state's waterway affairs, presided and in his brief remarks during the presentation of Governor Miller and other prominent speakers, he emphasized the vast importance of this remarkable structure. The ceremonies were conducted on the enormous pier which joins the elevator proper at the foot of Columbia Street, Brooklyn. This pier, which is 1,221 feet long and 150 feet wide, is so vast that the 2,000 odd participants, including the band, were almost "lost." Other speakers beside the Governor were Julius H. Barnes, president of the United States Chamber of Commerce and former head of the United States Grain Corporation, and F. W. Rowe, president of the Brooklyn Chamber of Commerce.

GOWANUS BAY ELEVATOR, BROOKLYN, N. Y., DEDICATED SEPTEMBER 1, 1922

Governor Miller in his long address stated in substance that the state administration took just pride in this highly commendable conclusion of its many years of strenuous labor, coupled with the expenditure of money—over $170,000,000—to perfect this wonderful waterway system that was not only a great benefit to the citizens of New York but to farmers virtually all over the country and also to shippers and other citizens affiliated with them in transportation, not only of grain, but other commodities as well, from the interior to the consumer both in the East and abroad. Furthermore he pointed out that this great canal must be utilized freely by all merchants and shippers for the transportation of freight from the seaboard to western points not only in New York but further west. Governor Miller also pointed out that last year the canal had been rescued from the incubus of Federal control which was, of course, an aftermath of the war. This control had served to restrict the use of the canal in a commercial way for the time being as it prevented private enterprises. Following this removal many enterprising shipping concerns as well as merchants had constructed numerous large boats or barges for the transportation of grain, etc., and as a consequence the volume of business this season showed gratifying enlargement, notwithstanding the fact that the heavy and protracted rains had caused many washouts which necessitated dredging in many instances to maintain the required depth of water at 12 feet. This abnormal and unexpected hindrance had only been overcome after strenuous labor on the part of the authorities. Governor Miller called attention in the most emphatic manner to the fact that this remarkable canal had been constructed primarily for the benefit of the citizens of this state but was in addition of great advantage to the general public and therefore it was up to everyone concerned to see to it that every possible use be made of the great waterway constructed for their benefit.

Julius H. Barnes, who is one of the largest grain exporters in the country if not in the world, followed Governor Miller on the program. Mr. Barnes pointed out that this was a far greater and broader proposition than was realized by the public generally. He stated in substance that the so-called outside public who are not directly concerned with crops, feedingstuffs, transportation, etc., could not be expected to thoroughly see the importance of the canal and the wonderful new elevator. It was not merely a commercial affair, as Mr. Barnes pointed out, but was in a large degree a more comprehensive and far reaching proposition. It was in short a nation-wide subject, partly because it enabled farmers and others in the interior to live on a higher plane, to enjoy greater comforts, because they could make more rapid and satisfactory progress, partly because transportation facilities were so much better than they would have been otherwise. It enabled farmers to market their crops more speedily and with less labor and at a saving in cost. These betterments were of general or nation-wide importance because the entire country was in an important degree dependent upon our crops, and the success of our farmers. If our farmers are not successful then prosperity in general is in jeopardy.

The elevator is the last word in up-to-date construction, being built of steel and concrete through-

out and equipped with the latest and best mechanical devices necessary to the most expeditious handling of large quantities of grain. Being the property of the State of New York, the elevator is to be operated by the Department of Public Works, of which Charles L. Cadle is Superintendent. The actual operating will be in charge of Charles W. Austin, an elevator man of many years' experience and widely known in the grain trade. Working under the supervision of the state engineer and on the plans prepared by H. L. Wait of Buffalo, the work of construction was rushed through with unusual rapidity by the Fegles Construction Company of Minneapolis.

Facing on the Henry Street Slip, the elevator occupies about 30,100 square feet, being about 430 feet long and 70 feet wide. The storage system consists of 54 bins in 18 rows, 20 feet in diameter, to hold 26,000 bushels each; 34 bins in the interspaces, each to hold from 11,000 to 16,000 bushels; and 38 outer bins each to hold 4,000 bushels. The depth of the bins is uniform at 95 feet. The total capacity is reckoned at a little over 2,000,000 bushels. The bins are elevated on concrete pillars, which leaves room below for conveying machinery, etc. There are four reversible belt conveyors, all 42 inches wide; two on the lower floor and two on the bin floor. A cupola at the south end, above the bin floor houses four of, the marine legs and four 2,000-bushel Fairbanks-Morse Scales and garners, while a fifth leg is in a smaller cupola at the north end. Two more legs are in marine towers at the dockside with provision for another in a third tower. The marine towers were installed by the Webster Manufacturing Company.

The shipping galleries for loading steamers extend from the corner of the elevator to the canal pier and out over the roof of the pier a sufficient distance to permit of working on two steamers simultaneously. Barges may be loaded from these galleries or from the dock side of the elevator. The spouts are so arranged that two barges may be tied up side-by-side and while one is unloading at the marine leg, the other can be loading. The conveying system was largely furnished by the Weller Manufacturing Company.

After the grain has been taken in by the marine legs, which have a capacity of 16,000 bushels per hour, it passes through lofters in the marine tower to the 400-bushel hopper scales. From these it is spouted to the main legs in the house proper and lifted into the cupolas and conveyed by the conveyors to the selected storage bin. It is also possible to deliver grain direct to bins for the shipping galleries for steamer loading, or on the other side for barge loading. Finally, the grain may be delivered direct to the drier or cleaner bins. The Morris Drier has a capacity of about 1,000 bushels per hour (5 to 7 per cent moisture removal).

It is fed from a 10,000-bushel bin. Provision is to be made later on for the delivery of wet grain directly from boats to the drier without passage through the elevator. After passing through the drier the grain falls into two 500-bushel hopper scales and is then conveyed to the drier leg which returns it to a point above the bin floor and delivers it to one of the conveyors for distribution to the bins. Otherwise, having been weighed, it can be delivered directly to the shipping bins.

On the dockside of the elevator is the cleaning outfit which consists of four No.11 Invincible Double Shoe Receiving Separators. Each of these has a capacity of about 7,500 bushels per hour as an aspirator or 3,000 bushels per hour as a receiving separator. The grain is delivered into the two upper portions of the large circular bins which hold about 10,000 bushels each. After being cleaned the grain may be spouted to either one or two of the main legs. Hence two kinds of grain may be cleaned at the same time. The four main house legs deliver grain through four 2,000-bushel scales so that grain coming from the cleaners or from the house after mixing may be weighed before delivery to the shipping bins. Provision has been made for taking care of the dust from the cleaners and by-products where the grain is separated.

There are seven shipping bins of about 12,500 bushels capacity each, consisting of the top portion of the seven bins on the south end of the west row of large bins. The bins will load grain on either side of the two 42-inch shipping conveyors in Gallery "A", which have a capacity of 25,000 bushels per hour. The grain is delivered to conveyors in Gallery "B" which runs west to the second tower which contains the reserve bins from which grain is elevated to upper shipping galleries "C" and "D". The feed gate from these reserve bins to the elevator leg is operated and controlled electrically by switches in the upper galleries. Thus the operator can control his feed as desired and in addition he can notify the feed tender at the shipping bins so as to have additional control of the grain for unloading steamers. Any steamer may be loaded without shifting as the upper shipping galleries "C" and "D" have 12 loading spouts of 25,000 bushels per hour, or the same as the conveyors.

For the purpose of loading bulk grain into trucks there are six 4,000-bushel bins at the north end with outside spouts. No provision has been made as yet for loading or unloading cars, but if necessary this can easily be arranged for by putting tracks through on the west side where grain can be delivered to the four house legs in the south end. Two unloading hoppers could also be arranged for. The elevator is electrically operated, with power transmission by Morse Silent Chain Drives.

Several well informed and conservative dealers and merchants in the grain trade and in other lines, manifested much gratification, not only in the new elevator, but also in the canal as a whole, as they declared they were firmly convinced that it exercised a good influence on transportation and business affairs in general. In the main this opinion was largely founded on the obvious fact that the canal was able to carry grain, etc., at a lower rate than via rail and this naturally served to prevent a further advance in rail rates. Moreover, it was also pointed out that since the canal had been enlarged and electric power employed it was easy to make the trip from Buffalo to New York at far greater speed than formerly and this had naturally led shippers to use the canal more extensively. In addition it was asserted that during times when there was congestion on railroads flour as well as grain had made faster time on the canal than had been possible via rail. In view of the facts described many unbiased dealers firmly believe that transportation will show gratifying enlargement—both east and west—next season.

DURUM PROSPECTS

Leon M. Estabrook, head of the crop reporting work of the Bureau of Agriculture Economics, reports that he has made inquiries as to the probable yield of Durum wheat this year in the Northwestern States, but no estimates have as yet been issued. It is generally recognized, however, that the Durum wheat crop this year will be the largest on record, for the greatest area ever seeded to that grain was sown last spring. The Department of Agriculture points out that Durum wheat is the only variety that has been gaining relatively, steadily in production in the Northwestern States since 1914. It points out in this connection that Durum is the heaviest yielder in bushels per acre. Velvet chaff, Bluestem and Fife, it says, have each lost in relative importance each year in the Northwest since 1916.

Following are statistics of the growth in Durum wheat production in the Northwest, these compilations being from Minnesota, North Dakota, South Dakota and Montana combined. The four states raised 26,126,000 bushels of Durum in 1917. In 1918 their combined yield was 50,235,000 bushels. In 1919 they raised 30,996,000 bushels. Their 1920 Durum crop was 41,954,000 bushels, while last year they produced 49,533,000 bushels. North Dakota, the biggest northwestern wheat state, shows the biggest growth in Durum wheat production. In 1914 it raised 10,389,000 bushels of Durum. In 1921 North Dakota's Durum crop was 33,336,000 bushels, the largest in the history of the state. South Dakota raised 6,724,000 bushels of Durum in 1914, 10,570,000 last year. Minnesota raised 840,000 bushels of Durum in 1914 and 1,916,000 last year. The Montana Durum crop in 1917 was 1,460,000 bushels, against 3,711,000 in 1921.

This year the record of the past seems sure to be broken by a large margin, but perhaps not quite to the extent that is predicted by C. A. Cooper of the Central Grain Laboratories of Hutchinson, Kan. He estimates that out of the 164,000,000 bushels of Spring wheat in Minnesota, North and South Dakota, 90,000,000 bushels, or 55 per cent will be Durum. This percentage is 20 points higher than the general estimate. But even a 60,000,000-bushel Durum crop will make a difference to the Hard wheat millers.

QUALITY OF WINTER WHEAT BELOW AVERAGE

The quality of the Winter wheat crop this year is 4.1 points below the average for the last 10 years, according to reports received by the United States Department of Agriculture from its official crop reporters. Estimates made by about 5,000 mill and elevator operators in all parts of the Winter wheat producing section, based on early receipts, indicates that 48.7 per cent of the crop is below Grade No. 2. In 1921 the quantity grading below No. 2 was 40.4 per cent, and in 1920 it was 29.5 per cent.

The following table gives the estimated percentages of the crop in each grade for the 1922, 1921 and 1920 crops:

	1922	1921	1920
	%	%	%
Grade No. 1	13.3	19.7	29.5
" " 2	38.0	39.9	42.0
" " 3	27.6	25.1	18.2
" " 4	13.1	10.2	6.7
" " 5	5.2	3.5	2.4
Grades Below No. 5	2.8	1.6	1.2

MINERS' AND RAILROAD WAGES

Secretary of Agriculture Wallace recently drew some significant comparisons between the wages of miners and the returns farmers were getting for their crops.

"Take the average wage received by the coal miner for mining a ton of coal. In 1913 this wage per ton would buy 1.1 bushels of corn in Iowa; in 1921 it would buy 2.5 bushels of corn in Iowa. In 1913 the ton wage would buy .7 of a bushel of wheat in North Dakota; in 1921, .9 of a bushel. In 1913 it would buy 4.7 pounds of cotton in Texas; in 1921, 8.5 pounds. In 1913, 7 pounds of hog in Nebraska; in 1921, 14 pounds. In 1913, .8 of a bushel of potatoes in New York; in 1921, 1.2 bushels. In 1913, 11 pounds of sheep in Wyoming; in 1921, 18 pounds. In 1913, 1.6 bushels of oats in Illinois; in 1921, 3.1 bushels. In 1913, 2.4 pounds of butter in Missouri; in 1921, 3.2 pounds.

"Taking the average yearly earnings of railroad employes, we find that in 1913 the yearly wage would buy 1,492 bushels of corn in Iowa, and in 1921, 4,112 bushels. It would buy 1,028 bushels of wheat in North Dakota in 1913; in 1921, 1,466 bushels. In 1913 it would buy 6,449 pounds of cotton in Texas, and in 1921, 13,934 pounds. It would buy in 1913, 102 hundredweight of hogs in Nebraska, and in 1921, 237 hundredweight. It would buy 148 hundredweight of sheep in Wyoming in 1913, and in 1921, 296 hundredweight. In 1913 it would buy 1,087 bushels of potatoes in New York; in 1921, 1,916 bushels. In 1913, 2,174 bushels of oats in Illinois; in 1921, 5,109 bushels. In 1913 the price of a ton of coal, f. o. b. the mine, would buy 2.4 bushels of corn in Iowa; in 1921, 6.2 bushels; in July, 1922, 9.3 bushels. It would buy in 1913, 1.7 bushels of wheat in North Dakota; in 1921, 2.2 bushels; in July, 1922, 4.4 bushels. In 1913 it would buy 10.4 pounds of cotton in Texas; in 1921, 21.1 pounds; in July, 1922, 22.9 pounds. In 1913, 16 pounds of hogs in Nebraska; in 1921, 36 pounds; in July, 1922, 53 pounds. In 1913, 1.8 bushels of potatoes in New York; in 1921, 2.9 bushels; in July,

1922, 4.7 bushels. In 1913, 24 pounds of sheep in Wyoming; in 1921, 45 pounds; in July, 1922, 70 pounds. In 1913, 3.5 bushels of oats in Illinois; in 1921, 7.7 bushels; in July, 1922, 14.2 bushels. In 1913, 5.4 pounds of butter in Missouri; in 1921, 8 pounds; in July, 1922, 16.1 pounds.

HANDLING OKLAHOMA GRAIN IN VOLUME

One of the strong grain companies of the Southwest added materially to its grain handling facilities last year by building a new 50,000-bushel elevator at Frederick, Okla. The E. O. Billingslea Grain Company is well known in both domestic and export grain circles. The company is located at Frederick, in the southwestern part of Oklahoma and draws grain from that state and Kansas, being in a direct line to the Gulf Ports. The organization has had a large measure of success and its new house puts it in a favorable position for forwarding the great surplus that finds its outlet in the Southeast and abroad.

The new elevator is on the Frisco and the Wichita Falls & Northwestern Railroads. It is of frame construction, ironclad, and has 16 bins of various capacities. The house can receive 18 cars of grain

PLANT OF THE E. O. BILLINGSLEA GRAIN COMPANY, FREDERICK, OKLA.

in 24 hours, and has a loading out capacity of 24 cars or one car an hour. The only limit to adequate working capacity is the number of cars available. Now that the railway shopmen's strike is practically settled for the time being the problem of cars will find its solution.

The equipment of the elevator is of the best and is wholly adequate for that location. Holding an important place in the equipment are the two 1,000-bushel Eureka Grain Cleaners. There has been considerable complaint from mills and exporters in the South, that grain received by them has a high percentage of dockage and is otherwise dirty. The Billingslea Elevator is in a position to insure that each bushel of grain forwarded is in the best possible condition to withstand the heat and humidity that it is often called upon to do.

As grain is received both by wagon and by car the elevator has an automatic wagon dump, and a car puller for rail receipts. The weighing is done over a 500-bushel hopper scale, and a manlift gives ready access to all parts of the house. Power is furnished by two 75-horsepower electric motors which transmit the power to the elevator and machinery shaft by belt drive.

The office in the elevator is equipped with every modern office device, including a radio apparatus with a detector and two stage amplifier. The radio has four wire, 100-foot antennae, 65 feet high so that it can receive grain markets from all over the grain belt. In every way the elevator has been prepared to give service, to economize time and effort and to increase the efficiency of the Billingslea company.

AN INSURANCE PROBLEM

Considerable confusion has developed over the writing of explosion insurance on grain elevators at New Orleans, says the *Journal of Commerce*. Several weeks ago brokers controlling grain lines there wanted to cover them against the explosion hazard by endorsements attached to fire insurance policies. The legality of this practice was questioned and the opinion of the insurance department of Louisiana, which is attached to the Secretary of State's office was asked. The assistant Secretary of State first expressed the opinion that it was legal. Then he reversed his former opinion and finally he passed the question up as one which the department was not called upon to answer. Advices from New Orleans indicate that some companies are covering this hazard by endorsement, while others object to this course and doubt its legality.

Another cause of confusion is the rate to charge for explosion cover. The grain on which this cover was first asked was in elevators which are part of the Illinois Central Railroad property and included in its schedule. Agents inquired the rate to be charged and some companies notified them that, as a strike was on against the railroad, the rate was $2.40. Other agents asked the Explosion Conference for rates and it quoted the normal rate of 80 cents, apparently ignoring the strike of the shopmen.

FOREIGN CROP SUMMARY

Aggregate production of around 1,549,000,000 bushels of wheat this year for the United States, Canada, India, Algeria, Tunis, Morocco and Japan is indicated in latest estimates summarized by the United States Department of Agriculture August 31. Wheat production in these countries in 1921 totalled 1,440,000,000 bushels. Production this year in 14 countries of Europe is estimated at 892,000,000 bushels compared with 1,006,000,000 bushels last year. Russia, Germany, Austria, Jugoslavia, Czechoslovakia, Portugal, Denmark, and Holland are not included in the summary. In Manchuria wheat and rice are below average in condition, and in Chosen wheat and rye are poorer than last year. Reports on seeding in Argentina indicate increased acreage of all small grains.

The corn crops of Hungary, Jugoslavia and Italy need rain. In Rumania the harmful drouth has been broken, and in Bulgaria corn prospects are good. In the Matamoros district of Mexico floods have damaged the crop. The corn yield of South Africa is expected to be smaller than that of last year. The Hungarian Government has placed an embargo on exports of grain as the country's production is no more than requirements.

Favorable conditions for root crops are reported in England, France, Germany and Norway. In Hungary conditions are not so good. In Canada the prospect is for a slightly smaller yield of potatoes than last year. Forecasts of the hay crops in France, Germany and Rumania are favorable. Canada reports probable increase in the yield of hay and Clover over that of last year.

RADIO AIDS RURAL FEED DEALERS

Rural grain and feed merchants throughout the eastern section of the United States and Canada within a radius of 300 miles of Buffalo are receiving the closing option and cash grain prices via radio almost as quickly as members of the exchanges in the large grain centers. Prices are broadcasted twice daily by Callanan Bros., feed and grain jobbers in the Chamber of Commerce Building, Buffalo, through the courtesy of the Federal Telephone & Telegraph Company, which has a large broadcasting station in North Elmwood Avenue.

NEIL D. CALLANAN

WILLIAM J. CALLANAN

Today every rural community, no matter how far remote and difficult to reach by mail or telegraph, receives at noon and at the closing of the market daily, latest grain and feed quotations and all current market prices and are just as well posted on price tendencies and market conditions as the most active jobbers in the big city markets.

That this radio service is being used extensively by retailers in the smaller towns and villages can

readily be determined from the large number of letters which are being received by Callanan Bros. Scores of small grain and feed dealers in rural sections of western and central New York, Pennsylvania and Ohio have installed radio receiving sets so they will be in a position to secure the quotations broadcasted from Buffalo and thus keep in constant touch with the terminal market.

"When this service was started it was really in the nature of an experiment," explained Willian J. Callanan, a member of the firm. "We did not know just how it would be accepted by the rural grain and feed dealers, but from the large number of letters being received, it has been determined that the service is of great value."

Callanan Bros. is one of the new grain and feed merchants in the Buffalo market. While not the successors, the firm took over the business formerly conducted by the Burns Feed Corporation at the time Harry T. Burns and Basil B. Burns withdrew from the feed business to engage entirely in grains. The partnership is composed of Neil D. Callahan, who was vice-president and manager of of the Burns Feed Corporation, and William J. Callanan. Callanan Bros. is a member of the Buffalo Corn Exchange and the Buffalo Chamber of Commerce.

As a result of the broadcasting of feed quotations through the Federal Telephone & Telegraph Company's station, the firm has been able to build up its feed business in rural parts of the state. Retail feed dealers who have received the quotations are now numbered among the customers of this new company.

It is quite as important to feed dealers to keep posted on the market as for grain shippers. The progressive feed merchant makes his price on the replacement value of his stock, so that he is never out of line and can always refer his customers to the grain market if they quarrel with his prices.

Tracing the Grain Consumer's Dollar

In Which a Recognized Authority Explodes the Old Fallacy of the Grain Middleman's Huge Profits—Figures in Detail Show "Who Gets the Money"

By JAMES E. BOYLE*

"MIDDLEMEN Profits!" The phrase has been used and misused with great frequency during the past two years. Many industries have been called upon to publicly defend themselves against charges of excessive middlemen tolls. In this respect the grain industry has been no exception.

Those who are inclined to look with disfavor upon the present grain marketing system have asserted time and again that too large a part of the consumer's dollar finds its way into the pocket of the grain commission man.

Even a superficial examination will indicate the fallacy of such an assertion. And a serious examination of records will show that the profit of the grain commission man is surprisingly low when compared with profits in other industries where so broad a service is involved.

The grain commission man must arrange the financing of the grain movement. He must have the car sampled upon receipt. He must check the inspection. Then begins the round of the buyers, a comparison of bids and, finally, sale of the grain to the highest bidder. After the sale there is still more routine. Disposition of orders must be made; the sale must be confirmed; the state weighmaster's report checked; invoice submitted to the purchaser; collection promptly made; weight certificate and inspection certificate checked, and account sales made up for the shipper, which is practically a statement of every minute transaction from the time the grain left the country. Freight charges must be confirmed and paid, after which a check for the balance due is sent to the shipper.

The foregoing merely sketches the ordinary routine. It does not account for the instances where a great deal of extra work is involved.

For all this service rendered, let us say, on a 2,000-bushel carload of corn, the grain commission man receives a commission of from $15 to $20. That is his total return for the various services he performs. The rate of commission on all grains is 1 per cent, with the further proviso that when 1 per cent amounts to less than 1½ cents a bushel on wheat or 1 cent on shelled corn, or three-fourths of a cent a bushel on oats, then these latter rates may be charged.

For the purpose of tracing the consumer's dollar and determining just what share each middleman receives, and what share reaches the pocket of the farmer, an examination has been made of several shipments of grain, particularly corn, from producer to consumer. In the grain trade the consumer is the last purchaser of the raw grain and not the ultimate consumer of the manufactured product. The producers in this survey are middlewest farmers. The consumers are in part Chicago mills and industries, in part seaboard buyers, and millers in the East and South. The cars of grain described were, with two exceptions, consigned to the Chicago market and sold on a commission basis by members of the Chicago Board of Trade to whom they were consigned.

Figures for all these cars, showing the spread and who got it, were taken from the account sales and hence are accurate to the minutest detail. By a study of these tables, the reader will be able to judge for himself what leaks there are, if any, in the handling of grain by the various middlemen and whether too heavy tolls are taken by members of the organized grain exchanges for their services. He will also see just what causes the wide spread between farm price and consumer's price; why on a certain day the farmer at an Iowa station received 37 cents a bushel for corn which was sold a few days later in Chicago at 64 cents, a spread of 27 cents, every cent of which is correctly accounted for.

In the second article of this series is discussed the related subject of handling grain bought by wire or mail for deferred shipment—that is, "To arrive" grain.

The Middleman's Toll—Handling Cash Grain—Typical Examples

The first typical example is a car of No. 2 Yellow corn shipped from Elk Point, South Dakota, July 5, 1921. The local elevator paid the farmers 42 cents a bushel for the 1960.20 bushels, while the same sold to a Chicago consumer on July 8 at 63⅝ cents a bushel. Note that the farmer received 66 per cent of the consumer's price; railroad freight took 26.85 per cent; local elevator 4.56 per cent; Chicago commission merchant 1.57 per cent; war tax on freight .81 per cent; inspection, weighing and interest .21 per cent.

Example No. 1—One Car of Corn.

Shipped from Elk Point, South Dakota, July 5, 1921.
Grade No. 2 Yellow Corn, 1960.2 bushels.
Paid to farmers by local elevator, 42 cents per bushel.
Sold to Chicago consumer, July 8, @63⅝ cents per bushel.

			%
Paid by Chicago consumer		$1247.23	
Farmer received		823.31	or 66.00
Railroad freight		334.83	" 26.85
Local elevator		56.91	" 4.56
Commission merchant, Chicago		19.60	" 1.57
War Tax on freight		10.04	" .81
Car inspection	$0.30		
Grain inspection	1.00		
Weighing	1.00		
Interest	.29	2.59	" .21
			100.00

Here is another car of corn, No. 2 White, totaling 1830.40 bushels for which the George, Iowa, local elevator paid 41 cents a bushel and which was sold to a Chicago consumer on June 22, 1921, 16 days after shipment from George, at 62 cents a bushel. In this case the farmer received 66.13 per cent of what the consumer paid; freight charges were 27.55 per cent; local elevator 3.67 per cent; Chicago commission merchant 1.61 per cent; freight war tax .82 per cent, and inspection, weighing and interest .22 per cent.

Example No. 2. One car of Corn.

Shipped from George, Iowa, June 6, 1921.
Grade No. 2 White corn. 1830.40 bushels.
Paid to farmers by local elevator, 41 cents per bushel.
Sold to Chicago consumer, June 22, at 62 cents per bushel.

			%
Paid by Chicago consumer		$1135.04	
Farmer received		750.60	or 66.13
Railroad freight		312.69	" 27.55
Local elevator		41.61	" 3.67
Commission merchant, Chicago		18.31	" 1.61
War tax on freight		9.38	" .82
Car inspection	$0.30		
Grain inspection	1.00		
Weighing	1.00		
Interest	.15	2.45	" .22
			100.00

A car of No. 1 Yellow corn shipped from Ireton, Iowa, July 30, 1921, and totaling 2074.36 bushels, brought 37 and 38 cents a bushel from the local elevator, and sold to a Chicago consumer, August 11, at 64 cents. It will be noted that in this case, the farmer received but 58.60 per cent of the price paid by consumer; freight 26.68 per cent; the local elevator 12.05 per cent; the Chicago commission merchant received 1.56 per cent; freight war tax .80 per cent, and inspection, weighing and interest .31 per cent.

Example No. 3. One car of corn.

Shipped from Ireton, Iowa, July 30, 1921.
Grade No. 1 Yellow corn, 2074.36 bushel.
Paid to farmers by local elevator, 37 and 38 cents per bushel.
Sold to Chicago consumer August 11 at 64 cents per bushel.

			%
Paid by Chicago consumer		$1327.77	
Farmer received		777.98	or 58.60
Railroad freight		354.35	" 26.68
Local elevator		159.95	" 12.05
Commission merchant, Chicago		20.74	" 1.56
War tax on freight		10.63	" .80
Car inspection	$0.30		
Grain inspection	1.00		
Weighing	1.00		
Interest	1.82	4.12	" .31
			100.00

Another car of corn, No. 2 mixed, shipped from Ireton, Iowa, on August 2, 1921 and totaling 1732.41 bushels, brought 41 and 42 cents from the local elevator and 60¾ cents from the Chicago consumer on August 10. In this instance it will be seen that the farmer received 68.29 per cent of the consumer's price; freight cost 28.11 per cent; local elevator 0.75 per cent; Chicago commission merchant 1.66 per cent; freight war tax .85 per cent and inspection, weighing and interest .34 per cent.

Example No. 4. One car of corn.

Shipped from Ireton, Iowa, August 2, 1921.
Grade No. 2 Mixed Corn, 1732.41 bushels.
Paid to farmers by local elevator, 41 and 42 cents per bushel.
Sold to Chicago consumer August 10, at 66¾ cents per bushel.

			%
Paid by Chicago consumer		$1052.71	
Farmer received		719.08	or 68.29
Railroad freight		293.97	" 28.11
Local elevator		7.83	" .75
Commission merchant Chicago		17.33	" 1.66
War tax on freight		8.98	" .85
Car inspection	$0.30		
Grain inspection	1.00		
Weighing	1.00		
Interest	1.32	3.62	" .34
			100.00

In the next example—a car of No. 2 White oats shipped from Ridgeville, Ill., June 10, 1921—it will be noted that the farmer received 35 cents a bushel for the 1977.06 bushels, while the Chicago consumer on June 13 paid but 37⅛ cents per bushel, a spread of only 2⅛ cents. Freight cost, it will be observed, was but 10.77 per cent of total price. The local elevator suffered a loss of 7.75 per cent of the total price. Thus the farmer's average is

*The author of this article is Professor of Rural Economy at Cornell University. Professor Boyle is the author of "Agricultural Economies." "Rural Problems in the United States," "Speculation and the Chicago Board of Trade," etc. This is the first of a series of two articles which deal in a concrete way with certain marketing problems, the second article will deal with the buying of grain for deferred shipment.

high, being 94.22 per cent of consumer's price. The Chicago commission merchant realized 2.02 per cent on the deal. War tax on freight was .32 per cent, and inspection, weighing and interest were .36 per cent.

Example No. 5. One car of oats.
Shipped from Ridgeville, Ill., June 10, 1921.
Grade No. 2 White oats, 1977.06 bushels.
Paid to farmers by local elevator, 35 cents per bushel.
Sold to Chicago consumer, June 13, at 37⅛ cents per bushel.

			%
Paid by Chicago Consumer	$ 734.05		
Farmer received	692.02	or	94.28
Railroad freight	79.09	"	10.77
Local elevator	(56.90	"	*7.75)
Commission merchant, Chicago	14.82	"	2.02
War tax on freight	2.37	"	.32
Car inspection $0.30			
Grain inspection 1.00			
Weighing 1.00			
Interest .35	2.65	"	.36
	107.75		

*Loss.

Here we have three cars that do not indicate the amount received by the farmer or by the local elevator. In each case the shipper failed to disclose this information. The information printed in these three instances is from the account sales of the Chicago commission merchant and correctly shows the middleman's tolls.

In the case of the car of wheat from Clearmont, Mo., the farmer and local elevator together received 84.90 per cent of the Chicago consumer's price; freight amounted to 13.20 per cent, while the Chicago commission man rendered his service for 1.25 per cent of the total.

On the car of corn from Wagner, S. D., observe that the freight amounted to 37.18 per cent of consumer's price, while only 60.15 per cent of the total went to the farmer and elevator man, and but 1.21 per cent to the Chicago commission merchant.

In the next instance (example No. 8) the car of corn from Storm Lake, Iowa, returned farmer and elevator man 70.81 per cent of the Chicago consumer's price, and the Chicago commission merchant received 1.78 per cent, while freight cost exacted 26.27 of the total.

Example No. 6. Wheat.
Shipped from Clearmont, Mo., July 30, 1921.
Grade No. 1 Hard Yellow Wheat, 1472.40 bushels.
Sold to Chicago consumer, August 12 @120½ cents per bushel.

			%
Paid by Chicago consumer	$1774.56		
Farmer and local elev. received	1506.97	or	84.90
Railroad freight	234.15	"	13.20
Commission merchant	22.08	"	1.25
War tax on freight	7.02	"	.40
Car inspection $0.30			
Grain inspection 1.00			
Weighing 1.00			
Interest 2.04	4.34	"	.25
	100.00		

Example No. 7. Corn.
Shipped from Wagner, S. D., August 1, 1921.
Grade No. 1 Yellow corn, 1829.36 bushels.
Sold to Chicago consumer August 13 @61 cents per bushel.

			%
Paid by Chicago consumer	$1116.08		
Farmer and local elev. received	671.18	or	60.15
Railroad freight	414.96	"	37.18
Commission merchant	13.73	"	1.21
War tax on freight	12.45	"	1.12
Car inspection $0.30			
Grain inspection 1.00			
Weighing 1.00			
Interest 1.46	3.76	"	.34
	100.00		

The following two examples are miscellaneous cars handled in markets outside of Chicago. They threw further light upon the division of the money paid by the consumer of the raw product.

A farmer in Walhalla, N. D., shipping direct to a Grand Fork, N. D. flour mill, received 89.90 per cent of the total paid by the mill for his car of No. 3 Durum wheat. Freight cost 9.81 per cent of the sale price, and war tax on freight equalled .30 per cent.

A shipment of wheat to Duluth, Minn., from Mallory, Minn. (shown in example No. 10) returned to the farmer and local elevator 89.27 per cent of the $1,341.82 paid by the Duluth exporter. Freight and inspection cost 9/11 per cent of the price paid by the consumer, while the commission merchant in this case received 1.17 per cent for his services.

Example No. 9. Wheat.
Direct from farmer to miller. North Dakota.
Shipped from Walhalla, N. D., August 23, 1921.
Grade No. 3. Durum. 1381.40 bushels (net).
Sold to flour mill, Grand Forks, N. D., Aug. 27 @ 129¼ cents per bushel.
Length of rail haul, 88 miles.

			%
Paid by miller	$1725.80		
Farmer received	1605.36	or	89.89
Railroad freight	175.19	"	9.81
War tax on freight	5.25	"	.30
	100.00		

Example No. 10. Wheat.
Country shipper to Duluth, Minn.
Shipped from Mallory, Minn., August 16, 1921.
Grade No. 1 to No. 2 Nor. Spring Wheat 1040.10 bushels (net).
Sold to Duluth exporter, August 26, at 129 cents per bushel.

			%
Paid by Duluth exporter	$1341.82		
Farmer and local elev. received	1192.07	or	89.27
Railroad freight and inspection	122.24	"	9.11
Commission merchant	15.60	"	1.17
War tax on freight	3.63	"	.28
Weighing $1.25			
Insurance 1.03	2.28	"	.17
	100.00		

These typical country shipments throw considerable light on the "consumer's dollar" and just what share each middleman gets.

It will be noted that the farmer actually received all the way from 58 cents to 94 cents of the consumer's dollar, the average share of the farmer being 71 cents. The country elevator's part was the most fluctuating, varying from a loss of 7¾ cents on the dollar to a maximum of 12 cents.

Freight took the largest toll of any one middleman—larger by far than all the tolls taken by all the other middlemen combined. This item varied from a minimum of 9 cents of the consumer's dollar to a maximum of 37 cents. This latter was the case of a car of corn shipped from Wagner, S. D., to Chicago on which the freight was $414, the rate being 40½ cents per cwt. The farmer and local elevator together received 60 cents, the railroad 37 cents, of the consumer's dollar. This left 3 cents for all the other middlemen.

Car inspection fee, weighing fee, the fee for grain inspection, and grading, and finally the commission for selling the grain,—all these taken together are but a very small fraction of the freight on the grain.

It is quite obvious, therefore, that the most serious problem, so far as the middleman's toll is concerned, is the question of lower freight rates.

A FORTUNE IN PROPER WHEAT VARIETIES

The University of Missouri reports that there are four wheat varieties which, if used in place of those customarily sown, would increase the wheat yield of the state 29 per cent. They are all Soft Red wheats. The University bulletin says:

Except in certain limited areas in the northwestern part of the state, Soft wheat both outyields and outsells Hard wheat in Missouri. In a series of tests from 1905 to 1920 at seven experimental fields representing the northwest, northeast, central, west-central, east-central and southwest portions of the state, the Missouri Experiment Station made direct comparison of the yields of Hard Red Winter wheat and Soft Red Winter wheat. The yields of Soft wheat in this investigation, as reported in Bulletin 188, were considerably greater than those of Hard wheat in every portion of the state except the northwestern.

The varieties of Soft Red Winter wheat that have given the best results in these tests are: For North Missouri, Poole and Dietz; for Central Missouri, Michigan Wonder and Fulcaster; for South Missouri, Fulcaster.

In buying seed wheat a variety of tested value should be obtained from some nearby source. Wheat that has given good results on neighboring farms for several years is a safe kind to use. New varieties for which extravagant claims are made usually prove disappointing. All promising new varieties are tried out by the experimental station, and during the 16 years of experimental work reported in Bulletin 188 no one of the so-called new varieties appearing on the market has proved superior to the old established varieties recommended. In most cases these "new varieties" are merely old varieties under new names. In some cases they are unadapted varieties from distant sources.

NEW ILLINOIS COUNTRY ELEVATOR

Grain elevators in the country have been revolutionized with the new methods of handling concrete economically that have been developed only within recent years. Twenty years ago a concrete country elevator was almost unheard of; today it is far from a novelty, in fact is quite common in the more progressive districts.

The Eikenberry Construction Company of Bloomington completed last spring a splendid example of a concrete elevator for the Fletcher Co-operative Grain Company of Fletcher, Ill. (P. O. Cooksville).

PLANT OF THE FLETCHER (ILL.) CO-OPERATIVE GRAIN COMPANY

The house has a capacity of 20,000 bushels, divided equally between six bins. The receiving capacity is 4,000 bushels per hour, and the shipping capacity, 2,250 bushels.

Grain is unloaded into two U. S. Self-Locking Dumps with oil controllers and is elevated on two stands of elevators with 10x6 "V" buckets. The legs and heads of the elevators are of steel as is also the spouting to and from the bins. After weighing over a 10-bushel automatic scale, the grain is distributed by turn heads which are controlled from the work floor.

The power is furnished by a 15-horsepower Type "Y" Fairbanks Oil Engine. The transmission is by rope drive, operating 60 feet between centers. In every detail the house is arranged to give maximum control with a minimum of effort and it is hard to see how greater conservation of time and energy could have been arrived at.

The Fletcher Co-operative Grain Company has every prospect of success. The house is on the Illinois Central Railroad in McLean County, which is one of the great grain producing counties of the country. The plant handles corn, oats and wheat, and in addition has facilities for a large coal business which will be a not unimportant part of its activities.

All Aboard for New Orleans with the G. D. N. A.

THERE are many American cities that have interesting historical associations and commercial prominence, but none that has the rich glamour of romance, the interest of foreign scenes and customs and the brave historical memories of New Orleans, where the grain trade of the entire country will gather on October 2, 3 and 4 for the twenty-sixth annual convention of the Grain Dealers National Association. New Orleans holds a warm spot in the heart of the Association, for nine years ago it entertained the convention in a manner never to be forgotten by all who were there. Plans are completed by the able committee of local dealers to outdo this year even the elaborate entertainment that was offered on that former occasion. But even if the local committee failed to turn a hand New Orleans itself offers entertainment and interest so extensive and so diverse, that the question will not be, What can we do? but How can we find the time to do it?

New Orleans offers a splendid background for the historian, the antiquarian, and the modern efficiency expert. Within its area the distant past jostles elbows with the hustling future. On the one side are dear traditions, on the other ambitious dreams.

It is the latter spirit which has wrought the busy modern city, with its advanced scientific sanitation, its towering architecture, and its wonderful commercial facilities worthy of one of the great ocean ports of the world. To be sure, the city is far from the Gulf, but the great river carries the stream of foreign and American ships to the city's wharves, so to all intents and purposes, it is on the ocean's edge. For the year ending August 31, 1921, 2,767 vessels made berth at New Orleans, of which 425 were American steamships; 272 British; 67 Norwegian; 58 Italian; 31 Japanese; 30 French; 27 Dutch; 18 Spanish; 16 Swedish; 16 Danish, and others of less number from Belgium, Brazil, Cuba, Danzig, Dominican Republic, Greece, Germany, Guatamala, Honduras, Mexico, Nicaragua, Portugal and Roumania. Virtually the whole maritime world is found at the port and it is an intensely interesting sight.

So far as the traffic in grain is concerned New Orleans ranks high among exporting cities. During the year 1921, 56,662,708 bushels of wheat were exported through the port, 13,923,028 bushels of corn; 543,988 bushels of oats; 304,309,484 pounds of rice; 946,361 bushels of rye; 3,004,557 barrels of flour; 37,357 barrels of cornmeal; 1,064,265 bushels of barley; 2,288 tons of millfeed, and 1,749,298 pounds of oatmeal. Shipments were made to every civilized country.

For many years New Orleans was one of the plague spots of the country. Yellow fever, cholera, bubonic plague, malaria and a host of other foreign and domestic maladies were constantly present and menaced the whole South. The city is below the high water level of the river and the ground was a sponge. Open sewers moved sluggishly through the city, carrying stench and pestilence; cisterns caught the rain water and bred mosquitoes; the dead were buried above ground. After spending $30,000,000 New Orleans is today one of our healthiest cities; a drainage system has made cellars possible, a filtration plant provides clear and pure drinking water; a sewage system carries all refuse in covered culverts to the sea. The drainage has been extended to the surrounding country and the erstwhile swamp is now the most productive region in the world. Three and four crops are harvested each year and the silt soil is inexhaustible.

W. L. RICHESON
Chairman Entertainment Committee

The awakening of the sanitary conscience of the city aroused the commercial and civic pride. New structures replaced old until the sky line took on the appearance of a really great metropolis. The old hotels which were good enough for sailors and occasional visitors brave enough to defy the dangers that lurked in the germ infested town, have been replaced with modern hostelries that are the peer of any in the country. The Grunewald, which will be the headquarters for this convention as it was for the last, is famous for its appointments and its cuisine; the St. Charles, the Monteleone and many others offer the greatest comfort to the visitor. And no city has more famous eating places than the Luzianne, Antoine's, Galetoir's, Francois', and Kolb's. A visit to any one of them is an experience to be remembered and related through all the years to come.

As part of the modern city and worth a visit by every delegate we would mention the cotton warehouses, the public elevator, the retail and wholesale sections of the city and the public buildings. But the majority of visitors will be more interested in the old city which is more foreign than any on the continent.

This old city, the "Vieux Carre de la Ville" fronts the river for something over half a mile and is five squares deep. Bienville planned it in 1718 and Le Blond de la Tour, his brother, laid it out in 1720. There have been few changes since, except those wrought by the elements, and the few additions made by the Spaniards after the French relinquished control.

Surrounded on all sides by bustling modernism the "Vieux Carre" retains the character which was implanted when it was in truth on foreign soil. The courtesy and charm of eighteenth century France, and the inviting mystery of Spain are blended in the atmosphere of the old city and in the customs and habits of its present dwellers. Deeply religious, but with a devilish twinkle in the eye; isolated in spirit from the rest of the city, but with an open hearted hospitality for every stranger; a veritable museum of past history and forgotten art, but intent on its little daily tasks—that is Old New Orleans which makes feeding you a high art; makes entertaining you a pleasant duty; and makes enchanting you a solemn or mischievous rite, whichever will more nearly meet your mood and wish. Surely, no grain dealer would willingly forego the pleasures that this convention holds out. And the way has been made easy for him.

From every point in the United States except California and from all of Canada except the Canadian Northwest, the railroads have reduced their rates for this occasion to a fare and a half for the round trip, and no limit has been placed on the attendance, you get the reduced rate no matter how small or how large the attendance. Secretary Quinn will furnish you a certificate for as many members as will be in your party. Present this certificate at the railroad ticket office in your home town and the agent will give you corresponding tickets at the reduced rates. There will be no bother of validating and no uncertainty of a sufficient attendance, when you have bought your return ticket you are through. Let's go!

The convention dates were selected with care so that dealers could get away with the least possible anxiety for their businesses. October 2, 3 and 4 comes between the rush of Winter wheat shipments and the beginning of the corn movement. And anyway your business can get along for a few days just as well as if you were home. It will give you a chance to find out what a really good man Ed or John or Bill really is when he has some responsibility.

Then there are the hotel accommodations. New Orleans during Mardi Gras is no place for a poor man. Supply and demand operates for hotel rooms as it does for grain and the festival crowd puts a high premium on accommodations. But at this season the hotel rates are moderate even for grain dealers. At the Grunewald, convention headquarters, the rates are $7 and $8 for a double room

"OVEN" CEMETERY VAULTS AT ST. ROCHE'S SHRINE

CANAL STREET—NEW ORLEANS' MAIN THOROUGHFARE

OLD COURTYARD IN FRENCH QUARTER

with bath in the new annex, and in the main building or old hotel, $5 for double room and bath. At the Bienville the rates are $6 double; Hotel Monteleone, $6; De Soto, $6; St. Charles, $5 and up. Single rooms or rooms without a private bath are correspondingly less at all the hotels. These are the official rates secured by the Association and you can depend on them.

So you see all things have been worked out for your convenience and means, there is nothing to prevent your attendance, and every reason in the world why you should be present.

CHAS. F. SANFORD
In Charge of Trip Around Harbor

R. C. JORDAN
Chairman Convention Theatre Committee

RENE F. CLERC
Executive Vice-President, New Orleans Board of Trade

The program that has been prepared for this meeting is one of the best the Association has ever given to its members. The speakers secured are United States Senator A. O. Stanley, of Kentucky; Governor John M. Parker, of Louisiana; Dr. H. C. Taylor, chief of the Bureau of Agriculture Economics (formerly of the Bureau of Markets), Washington, D. C., and "Soapbox" Jack O'Brien. Two speakers, one representing the railroads and the other representing the Interstate Commerce Commission, will be secured, if possible, as conversant with the railroad problems as the original speakers who found they could not attend.

"A Prussianized State" is the subject of Senator Stanley's speech. This eloquent Kentuckian has for more than a year been drawing to the attention of the people the dangers into which the United States is drifting through bureaucracy and the growth of commission government. This speech will be one of the most notable of the convention. The subject has been before grain dealers in a more or less nebulous way, but Senator Stanley will attack it directly.

The railway experts will discuss some of the perplexing problems of the railroads from the standpoint of their owners, and the same problems from a Government point of view. It is easy to see that both speakers will have much to discuss in these days of strikes and Government control of rates to say nothing about the Federal control over the issuance of railroad securities.

Dr. Taylor in his address will speak for the Department of Agriculture and outline the policy of the Government in matters of co-operation among the producers, while "Soapbox" Jack O'Brien will tell the grain men some startling things about the radical movement in this country and how the reds still hope to bring about the "proletarian revolution." O'Brien is one of the speakers of the National Defense League which organization has in it a corps of street corner orators who tell the people the other side of the Marxian doctrine of economic determinism. With O'Brien and his colleagues it is a case of "fighting the devil with fire." They conceive that the only way to meet the "soapboxer" is to go on the soapbox yourself. This they have been doing with great success.

The committee reports read at the convention will be of more than usual interest. This will be especially true of the report of Chairman Reynolds, of the Legislative Committee. He will tell about the "investigation" of the Grain Dealers National Association by the United States Senate last winter and what came of it. This investigation was the result of the Kenyon resolution which sought to find out what the National Association did with the "quarter of a million dollars slush fund raised to fight the co-operative movement."

The entertainment provided by the New Orleans dealers is elaborate and unique. There will be no stereotyped banquet or other similar function, but instead a "smoker" where some original entertainment "stunts" will be provided for the enjoyment of the visitors. There will also be a boat ride around the harbor on an old style Mississippi River steamboat with dancing on board and music supplied by a colored band that specializes in old southern melodies. The visiting ladies, too, are to be most enjoyably entertained as a glance at the program shows.

While there is a great amount of business to be transacted and the program for the various sessions appear long, in reality some of them will not prove to be so and there will be ample time to take in the sights of the city and to transact any business you choose. You will find so much of interest and importance in the convention hall that you will not wish to miss a session, and it will not be necessary and still see everything of interest in this new-old metropolis of the South.

THE CABILDO

AVENUE OF PALMS

COFFEE DOCK

THE PROGRAM

MONDAY, OCTOBER 2

Morning Session, 9:30 O'Clock

Call to order by the President.

Congregational singing, led by J. R. Murrel, Jr., of Cedar Rapids, Ia. Each session of the convention will be opened by a few minutes of congregational singing led by Mr. Murrell. This is merely to promote good fellowship and start each session off with animation.

Address of welcome on behalf of the City of New Orleans—Hon. Andrew J. McShane, Mayor

Address of welcome on behalf of the State of Louisiana—Hon. John M. Parker, Governor of Louisiana.

Address of welcome on behalf of the New Orleans Board of Trade—Thomas F. Cunningham, President.

Response on behalf of the Grain Trade—F. G. Horner, Lawrenceville, Ill.

President's Annual Address—B. E. Clement, Waco, Texas.

Report of the Secretary-Treasurer—Charles Quinn, Toledo, Ohio.

MONDAY, OCTOBER 2

Afternoon Session, 1:30 O'Clock

Address—"A Prussianized State"—Hon. A. O. Stanley, United States Senator from Kentucky.

Note.—There will be a group meeting of feed deal-

ers to discuss proposed changes in the feed rules. This meeting will be held immediately following the address of Senator Stanley.

Transportation—Henry L. Goemann, chairman, Mansfield, Ohio.

Telephone and Telegraph Service—F. G. Horner, chairman, Lawrenceville, Ill.

Uniform Grades—W. S. Washer, chairman, St. Joseph, Mo.

Committee on Rejected Applications—D. M. Cash, chairman, Mansfield, Ohio.

TUESDAY, OCTOBER 3
Morning Session, 9:30 O'Clock

Legislation—A. E. Reynolds, chairman, Crawfordsville, Ind.

Address—Dr. H. C. Taylor, chief of the Bureau of Agricultural Economics, Washington, D. C.

Trade Rules—F. E. Watkins, chairman, Cleveland, Ohio.

Membership—E. F. Huber, chairman, Minneapolis, Minn.

Presentation of booster prizes.

TUESDAY, OCTOBER 3
Afternoon

There will be no afternoon session of the convention on Tuesday, October 3. Those attending the convention will be taken for a boat ride around the harbor in a passenger steamer chartered for the trip. There will be music and dancing on board.

WEDNESDAY, OCTOBER 4
Morning Session, 9:30 O'Clock

Address—"Soapbox" Jack O'Brien, Toledo, Ohio.

Feed Products Committee—E. C. Dreyer, chairman, St. Louis, Mo. Mr. Dreyer will present to the general convention for its adoption the changes made in the feed rules at the group meeting of feed dealers.

Arbitration Appeals Committee—Elmer Hutchinson, chairman, Arlington, Ind.

Arbitration Committee No. 1—C. D. Sturtevant, chairman, Omaha, Nebr.

Arbitration Committee No. 2—F. B. Bell, chairman, Milwaukee, Wis.

Arbitration Committee No. 3—S. L. Rice, chairman, Metamora, Ohio.

Arbitration Committee No. 4—E. W. Crouch, chairman, McGregor, Tex.

Arbitration Committee No. 5—H. C. Gamage, chairman, Kansas City, Mo.

Arbitration Committee No. 6—I. C. Sanford, chairman, Portland, Ore.

Feed Arbitration Committee—J. H. Caldwell, chairman, St. Louis, Mo.

WEDNESDAY, OCTOBER 4
Afternoon Session, 1:30 O'Clock

Milling and Grain Joint Committee—Frank Kell, chairman, Wichita Falls, Texas.

Merchant Marine—C. B. Fox, chairman, New Orleans, La.

Crop Reports—E. J. Smiley, chairman, Topeka, Kan.

International Relations—W. B. Bashaw, chairman, Montreal, Canada.

Hay and Grain Joint Committee—W. I. Biles, chairman, Saginaw, Mich.

Unfinished Business.

Election and installation of officers.

New Business.

Adjournment.

ENTERTAINMENT
For Ladies and Gentlemen

Tuesday afternoon, October 3—Harbor trip on an old style Mississippi River steamboat. On this trip everyone will be given an opportunity to view the whole harbor, see the magnitude of the port and inspect the port facilities. Refreshments will be served and there will be dancing on board. Music will be supplied by a celebrated colored band which specializes in old Southern melodies.

For the Ladies

Monday night, October 2—Theatre party for the ladies.

Tuesday morning, October 3—Automobile trip in private cars around the city with a luncheon at the Country Club.

Tuesday night, October 3—Theatre party for the ladies.

Wednesday morning, October 4—Walking trip for the ladies through the French quarter and historical section of the old city.

For the Men

Monday night, October 2—Boxing exhibition at one of the local arenas.

Tuesday night, October 3—Smoker on the floor of the Board of Trade Building.

THE Canadian Bank of Commerce estimates the wheat crop of the Dominion at 325,000,000 bushels, with the harvest practically completed. No wonder Hard wheat has shown some weakness.

MINNESOTA wheat growers will soon concentrate their attention on Minturki wheat, a cross between Turkey and Odessa wheats, both hardy winter varieties. Many fields of the wheat grown this year averaged from 25 to 35 bushels to the acre.

IS THERE PROFIT IN THESE PRICES?

Elevator operators in Colorado have been effectually brought under the control of the Department of Agriculture, Labor and Industry, and as that Department is controlled by the agrarian legislature, the independent dealer has little to say as to how he shall run his house.

In last year's rules there was a clause which provided for the return of the grain to the holder of the storage ticket or the delivery of grain of equal quantity and quality. The question as to who should exercise the option was undecided. The new rule is shown in the "conditions" following.

The rates prescribed by the Department are shown below, taken from the storage ticket approved by the powers that be. We wonder how many shippers are getting rich as public warehousemen in Colorado:

SUBJECT TO THE FOLLOWING CHARGES AND CONDITIONS:

1. The charges for handling grain for others shall not exceed the following maximum rates:
   (a) Two cents per bushel for receiving, elevating, weighing and immediate delivery on car of the identical grain without mixing. (Immediate delivery—Not less than 48 hours but where conditions permit, special bin assemblage of grain without loss of identity for carload shipment shall be construed as immediate delivery, provided total period of assemblage and delivery does not exceed 72 hours.)
   (b) Four cents per bushel for all grains except flax, for removing, grading, weighing, elevating, insuring, fifteen days or part thereof free storage, coopering car and delivery in accordance with the terms of this warehouse receipt. For flax this charge shall be five cents per bushel.
   (c) Two cents per bushel for cleaning grain at request of owner where there are cleaning facilities, in which case screenings shall be delivered to owner.
2. The charges for storage shall not exceed the following maximum rates: One-thirtieth of one cent per day per bushel for each day in storage after period of free storage has elapsed.
3. Upon the return of this receipt to the warehouseman properly endorsed and upon the payment or tender of all advances and legal charges grain of the grade and quantity named herein shall be delivered to the holder of such receipt within forty-eight (48) hours after the facilities for receiving same have been provided; the right being reserved by the warehouseman to make delivery at Minneapolis or Duluth of Montana grain of like and equal grade, quality and quantity upon payment by the holder of the receipt of freight charges to terminal in addition to other charges above mentioned.
4. This receipt shall be issued only on actual delivery of grain into the warehouse, and shall not be given to cover grain of which the warehouseman is owner.
5. All grain is at owner's risk of loss or damage from the elements, riot, the Act of God, heating (unless caused by the carelessness of the warehouseman) or anything which may be in any way have been caused by the act of the holder of this receipt.
6. If receipts are made in duplicate or triplicate form, the original shall be given to the owner of the grain; the duplicate or triplicate retained by the elevator must be marked NON-NEGOTIABLE.

"JIM DUNN"

BY HOOZUS

Jim Dunn, who runs the elevator at Sperry Siding, says: "Ebe Miller, from down Walton way, dropt in th' other day, an' after we'd been a'talkin' for a spell, he says t' me, he says: 'Dunn! this here radio is a'gettin' t' be quite a thing, an' it looks like t' me we'd oughta get outfits for our elevators. Then we'd know jest as much 'bout these markets as them fellers in th' big towns. I reckon I'll get one, ennyhow.'

"Well, I says t' Ebe, I says: 'Ebe! if it's jest t' get a line on them markets, don't need no radio outfit. I got a system that beats that all holler.'

"Ebe he 'lowed I was a'gettin' a little bit off in th' upper story, but he said he'd like t' know what my system was, ennyhow.

"'Well,' I says t' Ebe, 'it's like this: Ya know Ol' Cal Tittle, that owns half th' land around this here neck o' th' woods, an' has stock in every bank in th' county an' never spends a cent but it brings tears t' his eyes? Of course ya know him, Ebe,' I says. 'Well,' I says, 'whenever he sells his wheat I know th' market's right at th' top. But when Jim Duffy, that has 'leven daughters an' has his farm mor'gaged t' th' last acre, comes in an' says: 'Dunn! I guess I'll cut 'er loose,' I know th' ol' market's ridin' right on th' bottom.

"'That's my system,' I says t' Ebe, I says, 'an' I ain't heard of enny radio yet that can beat it.'"

LITTLE TIPS FROM "JIM DUNN"

Th' farmers' elevator game seems t' be dead on its feet. Ain't there ennymore suckers bein' born, or are th' confidence men run out o' schemes?

A full house in a poker game's no good if there's no money in th' pot; but a full house in th' grain bizness is worse—when th' market's goin' down.

If ya try t' buy all th' grain, there'll be less comptishun after while—for your compet'ter.

Order that new belt afore th' ol' one lets go. A new belt on hand is worth a dozen in th' fact'ry.

B'lieve half th' farmer tells ya, an' make him prove th' other half. Mebbe what's left'll be the truth.

Profits may come, an' profits may go, but th' overhead goes on forever.

Beware of big losses, an' th' profits will take care of themselves.

Allus give your customer all th' scale calls for. There's only one way to weigh, an' that's th' right way.

UNIFORMITY IN CLEANING

BY TRAVELER

There is perhaps no other business where the methods of dealing with the trade vary to such an extent, as is the case with the country elevator business. Not only does each elevator man seem to have a system of his own, but each individual system is expanded or contracted to suit the needs of the moment, without regard to the effect it may have upon the welfare of the trade in general.

In this connection, the methods employed by the dealers in cleaning grain as it comes from the farmer are open to no little criticism. There is more friction as a result of this one abuse, perhaps, than of any other.

A farmer may drive up to an elevator with a load of wheat, where the dealer has a mill of some antique make which merely goes through the motions of cleaning the grain. Scarcely anything is taken out of it. When the dealer has finished, he tests the wheat and makes it 56 pounds, or number three, and pays the farmer accordingly.

The next load the farmer takes to another elevator, and here the dealer has an up-to-date mill, but sets it so as to clean the wheat so that it will just test short of 58 pounds. He tells the farmer it won't quite go Number 2, and that he can only pay him on a basis of Number 3.

The farmer tries another elevator with his next load, and here the dealer tries to be fair, and cleans the wheat as near right as he can and makes it a good grade of Number 2. He pays the farmer on that basis.

There is still another elevator in the farmer's immediate vicinity, and he concludes to make one more try and takes the fourth load there. This dealer is on the order of Dealer Number 2, but his method is just the opposite. He cleans the very life out of the wheat and makes it test 59 pounds. Learning that the last dealer made the wheat test slightly better than 58 pounds, this dealer pays the farmer a slight advance in price, hoping to get the balance of his wheat.

The farmer, of course, is all at sea, and concludes that somewhere along the line he has been made the goat.

Now, how do these several dealers come out in their handling of this wheat? If the wheat could be followed through in each case, it would be found that it worked out something like this: In the case of Dealer Number 1, his only salvation

would be in having sufficient wheat of a higher grade with which to mix off the Number 3; but this might often mean imperiling the grade of the better wheat. Recleaning over his antiquated mill would probably be of very little assistance in improving the grade.

With Dealer Number 2 it would be quite another matter. This man, having an improved mill would also be supplied with a good grinder. Before loading out the wheat he would give it another run over the mill, bringing it safely up to Number 2 grade. What was taken out in this extra cleaning would be put through the grinder with other feed and sold back to the farmer at practically the price of wheat, so that this dealer is well paid for the extra cleaning.

Dealer Number 3 should be able to sell the same grade that he bought; but will not make as much money as Dealer Number 2, and will lose some trade as a result of the machinations of Dealer Number 4.

Dealer Number 4 can only hope to have his 59 pound wheat help to lift a greater percentage of Number 3 wheat into the Number 2 grade.

There seems to be no suggestion to offer that would bring about a betterment of these conditions, and therefore none is offered; but the fact remains that these practices are responsible for much of the friction between dealers, and also for a great deal of the distrust and suspicion entertained by farmers.

CANADA'S PLACE AS A WHEAT PRODUCER

BY JAMES COLLEY

"The Bread-basket of the World" is a slogan often used in referring to Western Canada, and one that most aptly describes the prairie provinces in relation to their immense production of wheat. They earned this title several years ago—a generation in the life of the West—and if it was true then, it is much more so today, for the growth of wheat production in that section has been increasing at a greater rate than in any other part of the world.

In 1907 Canada was listed as tenth among the wheat growing countries of the world. In 1910, she had gained seventh place, and fifth the following year. Today she has climbed to third, the United States and British India being the only countries above her. Canada, in 1920, grew 12 per cent or one-eighth of the wheat of the world. Twenty years ago she was not even considered as a factor in the world's market. The expansion that has taken place, too, but foreshadows the possibilities of still further development, especially in the three prairie provinces.

Last year Alberta, Saskatchewan and Manitoba produced 80 per cent of the Dominion's wheat, growing 234,000,000 bushels out of a total yield of 293,361,000. The tremendous future wealth of these prairies can only be guessed at, but when it is considered that only 12 per cent of their agricultural lands are yet under cultivation, a vision may be glimpsed of the part they will play in feeding the world when all the vacant lands are under crop. Were only one-third of Western Canada's 475,000,000 acres of arable land planted to wheat, in an average year there would be enough produced to feed the whole world all the bread it could consume.

Since 1911 more than 14,000,000 acres of land have been brought under cultivation, but even at this rate of progress it will be the middle of the present century before the unbroken prairies and parklands of the Canadian West have all disappeared. Half of this increased acreage has been planted to wheat, of which there were 16,841,000 acres in 1920 as compared with 9,991,000 10 years previously.

Saskatchewan in still the premier province as regards production, owing to her immense area of flat, open prarie country, eminently suited for wheat and other grains. But Alberta is rapidly decreasing this lead, besides expanding at a record rate in the production of mixed farming crops. An interesting comparison is made in the areas devoted to this cereal in the three provinces, and the corresponding production, during the 10 year period, 1911-1920.

Province	Acreage			Yield
	1922	1920	1911	1920
Manitoba	3,094,833	2,705,622	62,689,000	37,542,000
Saskatchewan	5,256,474	10,061,069	109,075,000	113,135,000
Alberta	1,639,974	4,074,483	36,602,000	83,461,000
	9,991,281	16,841,174	208,366,000	234,138,000

It is hard to visualize the immensity of these figures. If this huge crop were placed in sacks laid end to end, it would form a line twice around the earth at the equator. More than 100,000 cars are required to carry it to the elevators at the head of the Great Lakes, where the grain is stored or shipped to market.

The estimates for this year's crops show a further increase in yield. From conditions on August 1, the outlook was for a total wheat crop of 320,968,000 bushels, more than 20,000,000 bushels larger than the final estimate last year. The estimated yield of oats is 509,752,000 bushels, as compared with 426,232,900 last year, and of barley 64,881,000 bushels, as against 59,709,100 in 1921. It is estimated that the yield of rye will be 37,585,000 bushels, as compared with 21,455,240 last year, and flaxseed 4,530,000 bushels, in comparison with 4,111,800 in 1921.

Grain, however, is not the only product of importance that Western Canada is producing. During the last decade the governments and the Canadian Railways—which have played so great a part in the development of the country—have unceasingly preached a gospel of mixed farming, as practiced in the countries of the Old World and older settled parts of the New. No matter how rich a soil may be, year after year of straight grain growing is bound to affect the productivity. This has been demonstrated in our own West.

The old saying "What comes out of the ground must go back" has been proven too many times to need additional verification. So the "Soil-miner," as the exclusive grain grower is often called, is going out of fashion, and the mixed farmer is taking his place. This does not mean that a smaller acreage is being planted in wheat—the added area placed under cultivation each year will more than offset this—but "fewer acres and bigger crops" is now the watchword.

The land that would otherwise be left idle is utilized in raising livestock and fodder crops, in dairying and poultry raising, and all those kindred varieties of agriculture, which insure a steady return year after year, and for which Western Canadian soil is suited equally as well as for wheat growing. Long before the prairie sod was broken for grain, horses from the western provinces were known all over the world for their endurance and lung-power; cattle raised there can successfully compete with stall-fed beasts of other countries. An Alberta cow has held the dairy championship of the British Empire, while dairy produce to the value of more than seventy million dollars was produced in Alberta, Saskatchewan and Manitoba during the past year.

Since Western Canada started taking prizes, she has repeatedly cleaned the boards at all the largest grain and stock shows in North America in all classes in which she has entered. To enumerate all her triumphs would need an article in itself, but, until last year, each year since 1911, when Seager Wheeler of Rosthern, Saskatchewan, was awarded the $1,000 gold prize donated for the best exhibit of Hard wheat, the premier honors for Spring wheat have been won by one or the other of the prairie provinces, and now Western Canada "Hard" is universally recognized as second to none. Last year the prize wheat came from Montana, but was raised from Canadian seed.

These successes show that quality as well as large yields is an attribute of the agricultural products of western Canada, and that this attribute applies as well to the livestock raised in the country as to the golden grain of its fertile soil.

HARVEST AND MARKET IN CANADIAN NORTHWEST

WHEAT CARRYOVER SMALL

The total carryover of wheat July 1 was 79,813,000 bushels, according to reports to the United States Department of Agriculture. In 1921 the carryover was 92,167,000 bushels, in 1920 it was 91,424,000 bushels, and in 1919 it was 48,465,000 bushels. These carryovers are the totals of stocks on farms, in country mills and elevators, and the commercial visible at points of large accumulation.

Wheat stocks in country mills and elevators July 1, 1922 were reported as 27,830,000 bushels. On July 1, 1921 stocks were 26,767,000 bushels; July 1, 1920 they were 37,304,000 bushels, and in 1919 stocks of 19,672,000 bushels were reported. Wheat stocks in country mills and elevators in Kansas July 1, 1922 were 4,250,000 bushels, in North Dakota 2,800,000 bushels, in Washington 1,860,000 bushels, in Montana 1,600,000 bushels, in Minnesota 1,550,000 bushels. Smaller quantities were reported in other states.

GRAIN EXPORTS IN JULY

Grain exports held up well during July according to the records of the Department of Commerce. The following table shows the totals, with comparisons (000 omitted):

	Month July		June,
	1922.	1921.	1922.
Barley, bushels	2,518	2,107	1,152
Corn, bushels	14,269	14,972	11,670
Oats, bushels	4,180	263	6,507
Rice, lbs.	29,334	63,264	40,275
Rye, bushels	2,788	931	4,953
Wheat, bushels	14,952	24,842	14,006
Wheat flour, bbls.	921	1,238	932

Wheat and corn show an increase over June, and barley, oats and rye show an increase over last year. With the new crop, however, there are new difficulties ahead, incidental to the uncertain financial condition of many of the European nations.

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We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers National Association and of the Illinois Grain Dealers Association

CHICAGO, ILL., SEPTEMBER 15, 1922

GRAIN GROWERS REVIVAL

THE reorganization of the U. S. Grain Growers, Inc., is the first creditable thing that the organization has done. It was conceived in ignorance, fostered and propagated on falsehood, and failed because its impossible promises could not be fulfilled. Its leaders tried to capitalize it for their own political ends but were everywhere discredited and overwhelmed. As a last resort a reorganization was effected with an entirely new set of leaders.

Burdened with an acknowledged debt of $285,267.27, with no resources, and with the confidence of their adherents badly shaken if not irretrievably lost, we imagine that the new officers accepted their appointments without any great enthusiasm. It is encouraging for the future of the organization that the new officers have discarded former methods, and have adopted a policy of honesty at least. E. H. Cunningham, the new president, has issued a statement in which he says that they have no Utopian schemes to propose, but that they will make an effort to create a producers' selling agency, based upon sound business methods and operating in conformity to economic law. First of all the creditors will have to be satisfied and that will be the immediate concern of the new management, after that has been done a frank statement will be made, but what the future will develop no man can say.

This statement inspires more confidence than has been possible with any previous utterance of the Grain Growers. It remains to be seen whether the financial mess can be straightened out; if not, there will be a receivership and the U. S. G. G. will be a thing of the past, like the Farmers Co-operative Brotherhood, and a score of other dream-built organizations; if the creditors can be induced to hold off, then there will be a new competitive agency in the field, but one which need not be feared more than other competition, for the cost of handling grain has been reduced to the minimum and co-operation or any other method cannot make greater economies in the marketing system. For a short time the co-operative mania may bolster up an uneconomical agency, but eventually the grain will flow in the most efficient channels.

BACK TO NORMAL

THE activity of county agents and farm bureaus in the realm of economic experiment is not over by any means, but it is encouraging to witness the fact that there is a resumption of interest in better crops. To be sure the chief incentive for this change has come from millers' associations and other outside agencies, but the county agents are backing the movement and that in itself is encouraging.

In the Southwest a vigorous campaign has been conducted for early plowing and improved wheat seed. In the Soft Winter wheat belt a determined effort is being made to induce farmers to eradicate garlic and wild onion, which have long been a pest, and in some sections have become a veritable menace to the wheat crop. Kansas has done splendid work in determining the best corn varieties for the various sections of that state and similar work in wheat, oats and rye are under way in the Northwest.

On the whole, the prospects seem fairly bright for an improvement in basic agricultural methods, and a gradual forsaking of economic will-o'-the-wisps, which are based on politics rather than on sound thinking. If the politicians and grafters could be eradicated from the situation the farmer and the country at large would be infinitely better off.

RIGHT ABOUT FACE

TWO years ago, when farmers were being urged to hold their $2.25 wheat for $3 by all the co-operative and radical agricultural leaders, the country newspapers of the Northwest vociferously backed up the leaders, printing column after column of propaganda showing how the terminal market dealers robbed the producer by buying up the grain at harvest time when prices were low and selling it in the spring when prices were high.

This year Mr. Marcy, president of the Armour Grain Company, and others have advised the farmers to hold as much of their grain as possible on the farm to avoid a fall congestion. But the country papers are taking a different stand. Two years ago we were well started in a deflation movement which affected every business, and everyone except the farm leaders knew that agriculture could not hope to escape. Today we are near a wave of prosperity which will undoubtedly have its effect on grain prices. Conditions are exactly opposite, and yet the papers are holding up the former experience as a warning and are advising selling of grain at once and paying up their debts.

This advice is wholly selfish on the part of the papers, and is not always due to ignorance. The losses suffered by the farmers who held their wheat in 1920, were reflected in the poor business done by country merchants and lack of advertising for the papers. So you see there is a personal reason for the criticism of Mr. Marcy's advice. The papers want more money in local circulation so they can get their share. But aside from that selfish advice, it is our observation that not one out of 10 country newspapers has an editor who does any original thinking. They follow blindly every popular craze affecting the farmer and only wake up when the craze has been thoroughly discredited and the cause exploded. They may know their business at that, for the farmer seems to enjoy being fooled if he is patted on the back at the same time, and the country newspapers are great little patters.

ANOTHER FARM BLOC BLUFF

THROUGH the farm bloc in Congress, our agriculturists have definitely established themselves as a race apart, a group whose interests are different from those of the rest of the country, and who are so suspicious of everyone not a farmer that they demand recognition on every board, commission or committee, regardless of the work to be performed. A great cry was raised for the appointment of a "dirt farmer" on the Federal Reserve Board, an administrative body which should be made up of the highest banking talent without political or class prejudice. And now the farm bloc has made a demand on President Harding for the appointment of an honest to goodness "dirt farmer" on the Tariff Commission.

The duties of the Tariff Commission are to ascertain and report the comparative cost of production at home and abroad of all commodities, so that an intelligent basis for tariff legislation can be obtained. The Commission has nothing to do with making the tariff, its work is highly technical and is largely limited to the field of cost accounting. Just what advantage would accrue to the farmers by an appointment of one of their number is hard to see. It is also difficult to figure out any advantage to the Commission. We know many farmers who are highly intelligent men, efficient in their work and with a fund of common sense. These men would be the last ones to demand a place on the Tariff Commission, and would not accept it if offered. If such a place is filled it will be by someone who is a political henchman of some farm bloc politician and who, no doubt, is a better politician that he is a farmer. Beware the advice of a farmer who needs a job.

The move is simply a political gesture by the farm bloc and has no economic significance whatsoever except as it will lower the

efficiency of the non-political, non-class Tariff Commission. It is just another of the thousand and one things going on at Washington which fills every thinking citizen with disgust and makes the futile antics of Congress the laughing stock of the world at large and the shame of America.

TROUBLE AHEAD

AS THE rail strike pursued its leisurely course, the probability of future congestion and attendant trouble became a certainty. Attorney General Daugherty's application for an injunction came about two months too late. It will have a certain effectiveness even now, but nothing like as much as it would have had when the strike started. No union would dare defy law and order backed by a firm government, but the attempts at temporizing and the vacillating policies pursued at Washington have given strike leaders an unwarranted confidence in their power to bluff the United States. It has taken Washington a long time to realize that the people of the country, although inarticulate, are to be reckoned with and are in the end more powerful than any blatant group.

And what is the condition that is left. The June operating statistics of 182 freight roads (the latest available) show 13.9 per cent of cars were unserviceable as against 14.4 in June, 1921. In the period August 8-15, there were 140,253 surplus cars as against 153,880 the week before. Of this 140,253 cars only 9,589 were box cars and grain shippers might not agree that they were in good order. Business of all kinds is waiting the end of the strike to go ahead, so it is fair to assume that an acute car shortage will shortly follow. This means priorities and embargoes, and although food is a preferred freight, grain cannot be moved if there is nothing to move it in.

Under such circumstances it is the height of speculation to buy grain without hedging it. The market may be far from your buying level before you could get the grain to market. The wise dealer will be conservative and play safe or else take risks which the situation does not warrant.

THE WHEAT POOL AT WORK

WHEAT pooling can be made to sound attractive by an organizer who draws upon his imagination and has little use for mere facts. The organizer always talks about the domestic market and ignores the world market. It is well he does so for the world market would break wide open any pool that was ever organized if that pool tried to hold its wheat till the world met its price. Let us see how it actually works, for we have an example before us and the *Grain Trade News*, of Winnipeg, gathered the figures.

In Australia voluntary pools were formed this year to handle the wheat crop that was harvested in December and January. The pool advanced the farmer three shillings per bushel, which at the current rate of exchange would be about 67 cents. At the end of June the Western Australian pool made a further distribution of 1 shilling 4 pence, less freight charges. This would be a total payment of around 97 cents in our money. The average price at which the pools sold their wheat for export was 5 shillings 5 pence, or about $1.20, and it is doubtful if the difference will more than pay the storage, handling charges and interest.

American farmers can usually store grain on the farm if they want to speculate with it. If they need the money and sell at once they want the market price for their grain, not 75 per cent of it. Statistics issued by the Government shows that grain marketed at harvest time brings as high returns on the average as that held through the winter. The farmer is also saved the risk of deterioration and of market decline which risk the speculator assumes. So far as the farmer is concerned it is a cash proposition, and we believe he would soon get tired of waiting for his money from the pool even if he eventually got as much as he would under the present system. Of this latter point there is grave doubt in the minds of all except the pool leaders who are drawing salaries paid by the farmers.

SYMPATHETIC COOPERATION

COMPULSORY wheat pooling in Canada, although passed by the national assembly at Ottawa and endorsed by the legislatures of Saskatchewan and Alberta, will not be attempted this year. The time was short to organize a selling agency. The regular instrumentalities of the grain trade would have had to be used, and the men selected and asked to conduct the pool refused on the ground that they were afraid they would not have had the sympathetic cooperation of the grain trade.

When one of the courtiers of Charles I of England was about to share the fate of his royal master, to lose his head, it is chronicled that the headsman, in a fit of nervousness or remorse, dropped his axe, whereupon the courtier picked it up and returned it with a bow. Perhaps the pool leaders had this incident in mind, and felt that the grain trade should emulate the cavalier. Their positions would have been analogous, for of course the wheat pool would have destroyed the business of every independent grain dealer in Canada. And yet the pool leaders wanted the trade to not only pick up the axe, but put an edge on it. This would not be a case of sympathetic cooperation; it would be plain suicide.

A TENDENCY TO BE STOPPED

GOVERNMENT ownership of industries is, perhaps, the most outstanding tendency of the times. It is developed by our mania for speed and the impatience that goes with it. Every abuse or inconvenience must be remedied immediately, and for the remedy we go to our law makers. There has grown up a great demand for Government control or supervision over this or that industry, and we are headed, inevitably, for state socialism unless the business men of the country awake to the necessity of protecting from Government interference, not only their own industry, but all industry. What is sauce for the goose is sauce for the gander.

The latest development in this line is the public advocacy of state-owned elevators, made by C. M. Reed, chairman of the Public Utilities Commission of Kansas. Mr. Reed believes that, because there are times of grain congestion, the state could pronounce some magic word and erect elevators that would be profitable and would protect the producers and shippers of grain from every inconvenience that could arise. Mr. Reed, like every other advocate of public ownership of commercial utilities, ignores the fact that waste, corruption, extravagance and higher taxes has been the penalty paid for every such attempt. To the professional politician public ownership offers countless opportunities for graft, for the creation of offices for his henchmen, and for building up a political machine. Naturally he is strong for it, and makes the scheme sound as attractive and plausible as possible. But the politician does not pay the bills, he simply votes our money for them. The people have to pay for the experiment.

This subject will have considerable attention at the meeting of the Grain Dealers' National Association at New Orleans on October 2-4. Senator A. O. Stanley of Kentucky will be one of the principal speakers, and he will pay his respects to what he calls "The Prussianized State." That is us if we don't watch our step.

THE CROP REPORT

AMERICAN crop reports are the most important regulators of grain prices in the world. They are watched as eagerly in Europe, South America and Australia as on our own boards of trade and they have gained this influence because the trade has faith in the honesty with which the reports are gathered and disseminated. There have been glaring errors in the past resulting in census year discrepancies of millions of bushels, but it is impossible to make absolutely accurate estimates and the Government figures are recognized as being as close as any system would be.

The September estimate for corn puts the crop at 2,875,000,000 bushels, which is 142,000,000 less than last month but 44,000,000 more than the five-year average. There has been a great deal of firing since these figures were collected on September 1, however, and final returns will undoubtedly show a large amount of light, chaffy corn. The big losses from excessive heat have been in Kansas, Nebraska and South Dakota. In Iowa, and Wisconsin the corn needed the heat and there was a gain for the month. These states, with North Carolina, are the only ones that do not show a loss.

Spring wheat gained 14,000,000 bushels during the month, the estimate for the crop being 277,000,000. This is 69,000,000 bushels more than was harvested last year, and 44,000,000 bushels over the five-year average. Winter wheat remains at 542,000,000, making

all wheat 818,000,000 bushels. North Dakota, with 113,044,000 bushels, has the second largest crop on record.

The oats crop has shown the most favorable developments of any of the grains. Starting under most unfavorable conditions the crop has come forward to its present prospect of 1,255,000,000 bushels, an increase of 4,000,000, over the August estimate, and 194,000,000 over last year. The December estimate was only 1,060,737,000 bushels. Barley has a prospect of 193,850,000 bushels.

EDITORIAL MENTION

The time has about arrived for the Department of Agriculture to make a separate report on Durum wheat.

Railroads are now routing cars by the quickest way, but they can only charge the rate that would have been due over the route designated.

Our Louisville correspondent states that the hippopotamus eats a bale and a half of hay a day. Why bother about horses; why not start a Hippopotamus Association of America?

The condition of grain cars offered to shippers makes it necessary to use more than usual care in coopering. Car liners are almost essential to prevent costly leaks.

The Canadian Pacific Railway estimates the Canadian wheat crop at 393,000,000 bushels, the largest in the history of the Dominion. Up to September 8 deliveries have been 12 per cent in excess of 1921.

The Senate has authorized another investigation, this time it is the problem of crop insurance. The farmer needs protection against the exigencies of the weather, but what would be the insurance rate against poor farming?

Government crop reports undoubtedly have a marked effect on the market, as is natural and right. Some of the self-appointed "farmers' friends" would fix this by suppressing all publicity when crops are large and telling the world when crops are small.

The German farmer is forced to sell his surplus grain to the Government at a price about one-third of what he could get if he exported it. The farmers are kicking. Evidently the German farmers do not care for a compulsory wheat pool.

L. L. Winters of Chicago advocates allowing the War Finance Board to set aside a revolving fund of $300,000,000 to finance export sales of grain; drafts to be taken up by War Finance Board when transaction is guaranteed by Board and by the foreign government to whom the grain would go; credit allowed from one to six months. This is a sensible plan and workable, but until the tariff bill is passed Congress will not officially recognize that our farmers or foreign nations need any assistance. Our manufacturers are the only people who need protection, and they need it to the extent of keeping out of this country all goods which might possibly pay for these grain exports.

The co-operatives say that 100 men pushing separately cannot start a box car, but 10 men pushing together can start it readily. They fail to note, however, that six trained pushers can do the work at six-tenths of the cost of the 10 untrained ones.

A carryover of 90,000,000 bushels of wheat simply means that about half of the grain farmers in the country would each have to bin a wagon load or two of wheat in his granary. The total seems large, but in reality the amount is not a burden.

The Argentine Government has requested its Congress to loan the Russian Soviet Government 5,000,000 pesos. We did better than that last year through the Russian Relief, only we didn't fool ourselves by calling it a loan. We charged it up to charity.

With La Follette renominated in Wisconsin we can be sure the railroads will not be allowed to build up any iniquitous surpluses. In fact you can be reasonably sure that they will not be let alone long enough to build up their equipment to an efficient basis.

New Orleans has made some elaborate plans for the entertainment of visiting grain dealers next month. Incidentally she expects to demonstrate the advantages of shipping grain for export via the Gulf. It looks as if the trip would be well worth while from every standpoint.

Some prehistoric corn has been found in old stone slab graves in Tennessee. The corn is about half way between Flint and popcorn. None of the seed was offered to the public for planting, but we wouldn't be surprised to find that some enterprising faker pretended to have some for sale.

The Public Utilities Commission of Kansas has filed application for lower grain rates with the Interstate Commerce Commission. Specific reductions are not asked in the application, but it is expected that 12 other states will join in and make a 10 per cent reduction the goal aimed at. This reduction would save grain growers $22,000,000 a year and is worth a great effort. The commodities affected would be grain, grain products and hay.

The tariff bill is of immediate concern to all grain dealers and to the farmers. Foreign nations can only buy our grain by sending us manufactured goods to pay for them. Cash transactions do not figure in international exchange. It is unfortunate that the tariff ever became a political party issue. It has nothing to do with politics as it is strictly an economic question. We are deeply concerned in selling grain abroad, but how can we do so with a prohibitive tariff wall which keeps out the wherewithall to pay for it? To our notion the Republican who wants to show the greatest loyalty to his party will protest against the prohibitive tariffs that are in every schedule of the present tariff bill. People will not stand for it and will register their displeasure at the polls as they did in 1912.

There is not enough speculative interest in the market to support the pressure from Canadians and Northwest wheat sales. We cannot see anything but continued weakness until the fall rush is over. However, it looks as though there might be some money in grain purchases later in the season.

Of course there may be angles to the situation which are not disclosed in the published reports, but to the outsider it looks as if the Willard group of railroads have been false to their promises and have abandoned a fight almost won and which will have to be fought over again with the advantage all on the side of the shopmen.

It is predicted that within the next 25 years the Panama Canal will be called upon to handle 50,000,000 tons of shipping a year. The lock system depends on the local water supply which places the limit at between 30,000,000 and 40,000,000 tons a year. This has revived the argument for a sea level channel, and we may all live to see it.

J. M. Anderson of the Equity Co-operative Exchange of St. Paul is in Chicago making plans for the purchase or erection of a 1,000,000-bushel elevator. If the Equity makes the same kind of record in Chicago that it has in St. Paul, producers and co-operative shippers will get a trifle less for their grain, but otherwise things will go on as usual.

The Department of Agriculture estimates that the value of the principal farm crops of the country, based on the September 1 farm price, is $6,600,000,000. Corn hay and cotton are each worth over $1,000,000,000; wheat is worth $720,600,000; oats, $404,100,000; barley, $88,500,000; rye $50,300,000. The Government figures that wheat and rye will be cheaper this year than last.

During the first seven months of this year our wheat and flour exports were 45 per cent less than for the same period in 1921; corn exports were 63 per cent greater. All of that has to do with last year's crop and it is a dead issue. Now if some kind person would oblige with a statement as to what our exports would be in the next seven months, then we would sit up and take notice.

The Senate has voted to have an investigation of the cotton markets. Senator Smith of South Carolina thought that, in the face of a short crop, the price is too low and wants to find out why, hence the investigation. The coal and railroad strike has shut off the demand for sheetings and dress goods as they have for many other commodities. Of course the Senate could see no connection. The time that is wasted in Washington, if saved, would soon pay our national debt.

H. W. DEVORE
Toledo

NEWS OF THE TERMINAL MARKETS

H. H. NEWELL
Chicago

A RECORD EXPORT CARGO

On September 7 *S. S. Voreda* finished loading a cargo of No. 3 White clipped oats at the Port Covington Elevator of the Western Maryland Railroad at Baltimore, Md. The tallies show a total of 646,000 bushels, which is said to be the largest grain cargo ever loaded on any ocean carrier at any port. The oats are being forwarded abroad by Dennis & Co., Inc., for the account of the J. Rosenbaum Grain Company of Chicago.

MILWAUKEE INSPECTORS HAVE OUTING

An annual event with the Milwaukee Chamber of Commerce is the picnic of the inspection and sampling forces this year. It was held at Big Cedar Lake on August 20. The big feature of the day, aside from the fine chicken dinner, was the ball game, in which the Samplers beat the Inspectors by a score of 17 to 16, a close game, featured by much friendly scrapping with the umpire.

ADDITIONAL FACILITIES AT ASTORIA

The Port Commission of Astoria, Ore., has authorized the installation at the Astoria Public Terminal Elevator, of two additional receiving units, which will nearly double the present capacity and permit the unloading of 50 to 60 cars of grain in eight hours. An extra conveyor belt for loading out to boats will also be installed, and plans have been drawn for a 275-foot gallery to facilitate vessel loading.

"CORN HAS A KICK"

Corn has a kick in it. Hot dry weather stimulated buying last week. Government's estimate of 2,875,000,000 shows big decline during the month. Some say considerable damage since the report was gathered September 1. Crop Expert LeCount reduced his figures to 2,700,000,000. The extreme weather carried much corn closer to maturity and beyond the reach of Jack Frost.—*From Weekly Market Review of Southworth & Co., Toledo.*

"DOLLAR WHEAT"

One dollar a bushel for wheat has always been a sentimental figure in the grain trade. Years ago dollar wheat was a dream of the farmer, the hope of the grain dealer, the ultimate paradise of the bull. Today it is regarded as a paltry figure which represents hardship for the farmer, a figure below which should the selling price remain would mean reduced farm buying power to such an extent that the prosperity of the nation would be threatened. —*Hulburd, Warren & Chandler, Chicago.*

AN AID TO BOSTON'S GRAIN TRADE

An inspection trip on the Cape Cod Canal will be made under the auspices of the Maritime Association of the Boston Chamber of Commerce, on Monday, September 18, the guests proceeding through the Canal by steamer to Buzzards Bay and return, reaching Boston in the early evening. The taking over of the Cape Cod Canal by the United States Government and its improvement, operation and maintenance as a toll free waterway is a definite part of the New England port development program of the Maritime Association.

Much interest is being aroused in the proposed trip, which will be the first of its kind attempted by any commercial organization in New England. The affair is regarded in shipping circles as indicative of the steadily increasing interest in maritime affairs, that is being developed throughout New England, as a result of the activities of the Maritime Association. The value of the improved canal, not only to the grain trade of the Boston Chamber of Commerce, but to all New England shipping, will be large.

JAMES J. RODGERS

Formerly, that is to say 20 years ago, there would be an expression frequently heard or written about the effete East. It was somewhat of a derogatory term probably having its origin in the so-called culture of Boston and carried an implication of effeminacy in the men and a blue stocking character towards the women. Today, one seldom hears it applied to any of the New England territory and even Philadelphia has outgrown its reputation as a sleepy old town. The men of the East are keen and alert and while they might lay claim to having a greater degree of

JAMES J. RODGERS

polish than their Western brothers, due perhaps to the lack of a stockyards flavor, yet they are as hustling and enterprising as their confreres in the West. All this goes to show that the subject of our sketch is a real, live, honest-to-goodness grain man just as he appears to be in the accompanying half-tone.

James J. Rodgers is manager for Richardson Bros., of Philadelphia, Pa. This firm carries on a general business in flour, grain and mill feeds on the Philadelphia Commercial Exchange and its head is W. M. Richardson, one of the best and most favorably known of the eastern grain men and a former treasurer of the Grain Dealers National Association.

Mr. Rodgers was born in Cornwall, N. Y., and spent the greater part of his life until 25 years of age in a country town in Bucks County, Pa. He then removed to Philadelphia becoming a bookkeeper for A. B. Porter & Co. After three years of service with this house he went with Richardson Bros. and in a short time was made manager which position he still holds.

Mr. Rodgers is a familiar figure at all National Association meetings of grain men and millers. In fact, the photograph from which our cut was made was taken at Kansas City early in June of this year, the occasion being the foregathering of the Mass Convention of Millers National Federation. He has contributed his share in making the house of Richardson Bros. one of the most prominent and successful on the Philadelphia Commercial Exchange.

HEAVY BUSINESS AT MONTREAL

Grain business so far this year at Montreal is even larger than last year which was a record breaker. From the opening of navigation to September 1, the receipts were over 75,000,000 bushels or at least 5,000,000 greater than last year. The harbor elevators have been working 20 hours daily and two floating elevators have been constantly in use. In 1921 the total grain shipments from Montreal were nearly 140,000,000 bushels, and it is expected that this figure will be easily beaten this year.

LOOK FOR BETTER SOUTHERN BUSINESS

A member of one of the grain firms which does a large business with the South and Southeast recently expressed a decidedly hopeful view of the situation in that territory. He said, among other things:

"We are looking forward to a much improved business from this time forward on account of the fact the South is rapidly recovering from their financial ills. Cotton at many points is selling at 21 cents, which considering the cheap cost of production this year, is equal to a price much higher than in ordinary years."

BARGE LINE SHIPMENTS OF GRAIN

The Barge Line on the Mississippi is handling export grain to the limit of the number and capacity of the barges available. Cairo alone has during the past 30 days handled, for export through New Orleans, approximately 700,000 bushels, and with the better boating stage of the river that will be evident within a very short time, this tonnage will probably increase in a most pronounced way. The Federal Barge Line is now adding to their terminals at Cairo, facilities for the handling of general merchandise, to the extent of probably 40 per cent, giving them a capacity that perhaps is not equalled on any inland stream in the United States.

NEW FLOATING GRAIN EQUIPMENT AT PHILADELPHIA

To care for the rapid growth of the export grain trade of Philadelphia, and in anticipation of its continued further expansion, the Pennsylvania Railroad has placed contracts for a large new capacity floating elevator, and three additional steel grain barges. This equipment will be used to supplement the work of the Girard Point Elevator by providing improved facilities for the transfer of grain from Girard Point to vessels at other piers in the Delaware and Schuylkill Rivers.

The new elevator will be built by the Pusey & Jones Company of Wilmington. It will have a loading capacity of 13,000 bushels per hour, and will replace an old elevator, now in use, having a capacity of only 3,500 bushels per hour. Another elevator which is at present in use and has a 7,500-bushel hourly capacity, will be continued in service, so that upon the completion of the new elevator, the combined loading capacity, from floating equipment, will be 20,500 bushels hourly.

The three new steel barges have been ordered from the Sun Shipbuilding Company, of Chester-

They will be of 40,000 bushels' capacity each, and will replace one existing barge of 24,000 bushels' capacity and two of 16,000 bushels' capacity each. Three other existing barges, one of 16,000 bushels' capacity and two of 24,000 bushels' capacity, each, will be retained, so that when the new barges are received, the combined carrying capacity of all equipment available for the floating grain service will be 184,000 bushels. The new elevator and barges will give the Pennsylvania Railroad the most complete and modern floating equipment for loading grain on the Delaware River.

CANADIAN WHEAT

All of the late reports from Canada confirm the impression that the Canadian wheat crop is one of the largest on record and Canadian wheat is already moving in fairly liberal volume. Canadian rye and oats figures also show a material increase over last year. Undoubtedly competition between United States and Canadian surplus wheat for export will be keen. Supplies from the Southern Hemisphere will not be available until next January. It is believed that there will be little chance of a Canadian wheat influx to our markets in view of the high tariff and the probability of foreign buyers giving preference to the cheaper Canadian grain.—*From recent Market Review of the Quinn-Shepherdson Company, Minneapolis.*

NEW BUILDING CONTEMPLATED AT KANSAS CITY

The committee appointed by President Russell of the Kansas City Board of Trade to consider the problem of a new building to house that organization has been canvassing the situation and ascertaining the sentiment of the members of the Board. The committee includes John Fennelly, Sr., chairman; E. O. Bragg, and F. C. Vincent. While no official report has been given out, advices from Kansas City state that a new building is now seriously contemplated.

The present building at Eighth and Wyandotte Streets is too small and a new home is practically a necessity. The existing seven-story building, which was the first fireproof structure in Kansas City, was erected in 1886.

PORTLAND (ORE.) ALLEGES DISCRIMINATION

The port of Portland, Ore., has filed a formal complaint with the U. S. Shipping Board alleging that through discrimination in allocating cargo-passenger steamers by the Shipping Board, it has been losing a considerable portion of its normal wheat and flour business with the Orient. In the complaint, which was formally made by W. D. B. Dodson, general manager of the Portland Chamber of Commerce, the charges of inadequate service and of a lack of parity in rates are strongly emphasized. The complaint was also voiced at a recent hearing before a Shipping Board Committee held at Portland. A group of leading Portland exporters also requested the Shipping Board to allocate two more "502 type" steamers for operation out of Portland to the Orient.

GRAIN MOVEMENT AT BUFFALO

The rail situation is already being reflected in spot values in the Buffalo market. A movement of oats at harvest time was disappointing here as it was elsewhere, with a result that prices have maintained a gradual upward trend with an advance of 5½ cents per bushel since the low point three weeks ago. Receipts of rail oats from country points continue insufficient to supply requirements of local industries.

There has been a little increase in corn receipts but these also have been readily absorbed with a decline but of only 2 cents from the high water mark before the recent movement started. Receipts of Winter wheat are very small but on the other hand the demand is limited, as local millers supplied most of their wants by lake and there has been a good business in milling wheat during the past few weeks.

Both the local and eastern trade are taking the position of buying spot or transit grain and will continue this policy so long as the car situation remains tight, as they do not wish to repeat their experiences during the war when their purchases were held up indefinitely and they were compelled to over-purchase in order to supply immediate requirements. This situation is already resulting in a more active demand for spot grain than has existed for some time past but as the season progresses and the car situation becomes more acute as it no doubt will, the demand for grain in this market is likely to approach the boom at once of a few years ago, at least temporarily. It looks now as though grain on spot at Buffalo would command a premium right through the fall and winter.—*J. G. McKillen, Inc., Buffalo, N. Y. in letter of September* 12.

REVIEW OF PEORIA MARKET

Receipts of corn at Peoria have been fair and values have been following the trend of other markets. Industries have been the main buyers here, however, some corn is being worked for shipment. No doubt considerable more corn could be worked from the country if cars were available. On account of this fact the country have been selling very little corn to arrive. The domestic demand East is very light. Corn bought some time ago to go in that direction is now arriving there, and this will have to be digested before any fresh buying is done. In regard to the new crop, no doubt some damage has been done to same in some sections by the recent heat and drought.

Receipts of oats have been light here and prices are holding up well. The demand for shipment is not active at the moment. There seems to be just enough oats arriving to take care of the present demand, but we believe the movement would be larger if cars were available.—*Mueller Grain Company, Peoria, Ill., in letter of September* 12.

NEW OFFICERS WINNIPEG GRAIN EXCHANGE

At the recent annual election of officers on the Winnipeg Grain Exchange, Winnipeg, Man., J. B. Craig of the Central Grain Company was chosen president, James A. Richardson of the James Richardson & Sons Company, vice-president and Dr. R. A. Magill, secretary-treasurer.

Elections for the various committees and council will be held at the annual meeting on September 22. The nominations as they stood at the close of nominations were as follows:

Executive Council—F. J. Anderson, J. E. Botterell, G. E. Carthcart, R. R. Dobell, R. I. Evans, C. C. Field, J. C. Gage, H. Ganer, A. M. Godfrey, C. H. Leaman, D. C. McLachlan, W. A. Murphy, D. N. Potter, C. Tilt, Donald Morrison, N. L. Leach, R. B. McClean.

Committee of Arbitration—T. Brodie, G. N. Heimbecker, D. N. Potter, D. C. McLachlan, J. A. Richardson, A. Thomson and A. P. White.

Committee of Appeal—F. J. Anderson, J. B. Craig, R. T. Evans, R. A. Dobell, A. K. Godfrey, J. C. Gage and H. E. Sellers.

THE PITTSBURGH MARKET

Receipts of oats here have been rather disappointing, but the demand is not keen enough in the eastern consuming districts to more than take care of our light arrivals. A good crop of oats has been harvested in all eastern territory and they are better than oats from nearby western states. Prices prevailing here are in line with western quotations.

Receipts of corn have been quite in excess of the demand and an easier feeling exists. Values here are about 1 cent per bushel under western terminal quotations. Early corn has been cut in the eastern territory, a bumper crop is assured. Country points west of us are marketing corn rather freely with some shippers holding goodly stocks for more money.

The local movement of wheat has been exceedingly light the past 10 days. Farmers are dissatisfied with prevailing low prices and are inclined to hold. We understand that there is considerable wheat held over from last year, which is infested with weevil. Local mills, however, are securing sufficient wheat at the mill door to take care of their Winter wheat requirements.

The transportation companies seem to be moving grain rather freely and quickly. Very few delays reported and cars are plentiful.—*Harper Grain Company, Pittsburgh, Pa., in letter of September* 12.

ABOUT OATS

The after harvest movement of oats this season from the farms has been moderate; country elevator stocks moved out now could no doubt be easily replenished later out of supplies on the farms. The moderate farm movement and the scarcity of cars for loading combined, have contributed much to create a situation that has forced free covering by belated September shorts; and prompted also the sharp competition from domestic distributors for the daily arrivals. Broomhall cables say a better demand expected, as stocks of American and Canadian oats are very small, and Argentine offering sparingly.—*From recent Market Letter of Pope & Eckhardt Company, Chicago.*

EUROPE MUST BUY MORE WHEAT

The export demand for wheat has been fair, but no quantities were given. The Prussian crop report has had no influence on prices. Trade is impressed with the plentifulness of wheat and under these conditions it seems to take buying and a much better export demand to convince the trade that values have reached a point that warrants a return of confidence.

The Prussian crop of bread grains is estimated at about 184,500,000 bushels as compared with 235,-250,000 bushels last year. It shows a deficiency of more than 50,000,000 bushels and confirms recent reports of a poor crop in Germany. Europe must buy considerably more wheat sooner or later than she has bought of late according to low estimates on recent export business. Not only that, but she must buy more imported wheat than last season, if based on crop estimates abroad and in this connection it is not unreasonable to assume that consumption abroad will be no smaller than last season, when it was curtailed by financial conditions.

Lack of speculation and pressure from the country may serve to cause a further decline, but with values relatively low and the crop of the southern hemisphere not assured and uncertain, it would not take much to stir buyers to greater activity. Sentiment is entirely too one-sided and would not press sales, except on bulges.—*J. Rosenbaum Grain Company, Chicago, in Market Letter of September* 13.

MILLERS GETTING FILLED UP WITH WHEAT

Our market on strictly choice samples of Soft Winter wheat has been very strong. We have premiums of about 15 cents over the Chicago September for this class of wheat. In fact, all grades of anything like reasonably good Soft wheat have been bringing substantial premiums, but the last few days the edge of the market has been off considerable. Hard wheat is much harder to sell, also the lower grades are slow. Millers seem to be getting pretty well filled up and for that reason they are a little bit more careful in their buying. The run of wheat from the farmers is practically over and what is held back now is held back in the elevators, and probably 50 per cent of that is held back by reason of the lack of cars to ship in, or strike conditions governing the movement of it. We rather look for some easing up in the premiums on this wheat.

There has been a fair demand for corn but nothing big. The last week shippers have been taking the corn practically on an export basis. Premiums that prevailed a month ago have practically all disappeared. There is a vast amount of corn that is waiting to be worked to this market, but on account of the car situation it is a kind of a slow job. Crop conditions are about normal and we are not looking for very much change in the price on this corn.

We have had a big demand for oats here all

season, in fact we are selling the No. 3 White oats now at about 2 cents above the December. With no accumulation of stocks any place in the West, South or Southeast, we are led to believe that we will have a splendid demand for oats here at all times. Practically all the oats are concentrated at lake ports, the balance of the country is bare of stocks.—*Elmore-Schultz Grain Company, St. Louis, Mo., in letter of September 12.*

CHANGES IN MEMBERSHIP

Chicago.—The following have been admitted to membership on the Board of Trade: Waldo Z. Sharp, Frank L. Kidder, Richard Williams, William Melvin Lanyon, Frederick C. Lyman, Mark Smith, Carl E. Bostrom and Harry R. Cossitt. The memberships of the following have been transferred: William A. Bachmann, A. E. Schuyler, Ernest L. Welch, R. H. Lanyon, Frank W. Annin, Campbell Meeker, Estate of Wm. R. Parker and Thomas B. Southworth. Reported by Secretary John R. Mauff.

Duluth.—New members on the Board of Trade are S. C. Harris, F. B. Gitchell, J. C. Wyman, A. G. Ryan and H. G. Dickey. G. N. Stevenson, A. W. Frik, N. R. Olson have withdrawn their memberships; and the following transfers were made: Frank S. Cowgill to J. W. McCulloch of Chicago; George W. Higby to John W. Ericson; Henry Nelson to H. G. Dickey and J. N. McKindley to A. G. Ryan. Reported by Secretary Charles R. MacDonald.

Memphis.—C. W. Fellows and George J. Hamner have been admitted to membership on the Merchants Exchange. Reported by Secretary Walter J. Fransioli.

Milwaukee.—The memberships of Guy Blanchard and Earl L. Patterson have been transferred to L. R. Fyfe Additional. Reported by Secretary H. A. Plumb.

TERMINAL NOTES

Chicago Board of Trade memberships sold the first week in September at $5,350 and $5,375.

The *S. S. Magard* on September 11, docked at Toledo with the first cargo of grain of this year's crop from the upper lakes.

C. C. Parkhurst, for a number of years connected with A. J. White & Co., of Chicago, Ill., has formed a connection with Lamson Bros. & Co.

The Continental Grain Company of Chicago, Ill., has filed amended articles of incorporation increasing its capital stock from $100,000 to $300,000.

The Woodworth Elevator Company of Minneapolis has purchased a string of seven elevators in North Dakota from N. J. Olsen & Sons of Moorhead.

G. W. Gardner, formerly manager of the Gallatin Valley Milling Company of Great Falls, Mont., has entered the grain commission business at Portland, Ore.

D. Yulee Huyett has withdrawn from the grain commission firm of Huyett & Lyon, of Baltimore, Md., and the business is being continued by J. W. Lyon.

Henry Rang & Co., of Chicago and Milwaukee, have established an office at Fairmont, Minn., for buying and selling grain. V. L. O'Connor is in

A branch office of W. M. Bell & Co. of Milwaukee, Wis., has been opened at Parker, S. D. J. C. Weimer, formerly of Le Mars, Iowa, is in charge of the new office at Parker.

B. L. Simmons, formerly manager of the Minneapolis office of the Nye-Jenks Company, has been appointed manager of the state owned elevator at Grand Forks, N. D.

Frank S. Gresham, president of the Sun Grain & Export Company and the Gresham Flour Mills Corporation of Guthrie, Okla., both of which are in receivers' hands, has filed a personal voluntary petition in bankruptcy.

A change has been announced in the Bingham-Hewett-Scholl Company, receivers and shippers of grain of Indianapolis, Ind. The entire ownership of stock has been acquired by Harry H. Bingham and the name of the corporation changed to that of the Bingham Grain Company. No change has been made in the policy of the house and the same efficient service which characterized the old firm will be continued.

Joseph B. Bracken, Kansas City, manager for E. F. Leland & Co., will hold the same position at Kansas for Lamson Bros. & Co., who have absorbed the Leland organization.

The Woodward-Newhouse Company of Minneapolis and Duluth, has opened a branch office in Great Falls, Mont., in Room 434, Ford Building. J. C. Templeton is in charge.

Merrill, Lynch & Co., of Chicago, Ill., took over new offices on September 5, bringing together the various departments of the business on one floor at 29 South La Salle Street.

The Northern Grain & Warehouse Company, grain exporting firm of Portland, Ore., was amalgamated in August with E. A. Strauss & Co., of London, New York and San Francisco.

Lloyd Conklin, assistant during the war to Chas. T. Neal, Omaha representative of the United States Grain Corporation has associated himself with the United Grain Company of Omaha.

Charles Sincere & Co. of Chicago have taken in R. Townsend McKeever, a member of the New York Stock Exchange, as a partner, thus giving this house a seat on the New York Stock Exchange.

The Omaha office of the McCaull-Dinsmore Company of Minneapolis has been reopened with L. P. Roberts in charge. Mr. Roberts was formerly head of the Standard Grain Company of Omaha.

A New York State charter has been granted Gould & Dixon, Inc., who will engage as brokers and agents in handling grain, hay and straw in Buffalo. The directors are Jay Gould, Arthur A. Dixon, and Hubert H. Hunter.

The contract has been let for the installation of machinery in the new protein testing laboratory of the Kansas Grain Inspection Department at Kansas City, and it is expected that the laboratory will be opened within a few days.

The Brown Grain Company of Minneapolis, Minn., recently filed amended articles of incorporation increasing the capital stock from $100,000 to $150,000. It also provides that the limit of liability be increased from $500,000 to $2,000,000.

The E. & R. Elevator at Chicago, formerly owned by the American Malting Company has been taken over by the D. Rothschild Company, who will operate it as a transfer and storage house. The elevator has a capacity of 500,000 bushels.

President Robert McDougal of the Chicago Board of Trade has appointed a committee to work in conjunction with the St. Lawrence Deep Waterway project. The committee includes George S. Bridge, A. V. Booth, Geo. E. Marcy, J. C. Murray and E. L. Glaser.

The Ralston Purina Company of St. Louis, Mo., which in 1919 issued gold notes to the amount of $1,400,000 recently gave notice that under the debenture agreement all the outstanding notes will be redeemed. This will be done without any further bond issue.

The old Winnipeg grain firm of Matheson Lindsay Grain Company, has been incorporated with a capital stock of $500,000. The new company, it is stated by Thos. S. Matheson, is a broadening out of the old organization, made necessary by an increase in business.

It is announced that Julius H. Barnes, president of the Barnes-Ames Company of New York, and formerly director of the United States Grain Corporation, will be one of the American representatives at the second general meeting of the International Chamber of Commerce at Rome, in March, 1923.

The McCaull-Dinsmore Company, grain commission merchants of Minneapolis, Minn., has established a general western office at Portland, Ore., with G. A. Bailey in charge. It is stated that the Minneapolis firm is the first one from that market to open a branch at Portland. In connection with the opening, President J. L. McCaull said: "In establishing the Portland office it is our aim to take care of all business from North Dakota west that the McCaull-Dinsmore Company is concerned in, that will take in our business at Puget Sound. The company has been doing business in this field for 20 or 25 years and it grew until it was necessary to centralize the western interests to avoid an unreasonable amount of traveling."

A grain brokerage and commission business has been opened at Omaha, Neb., by J. P. Zimmerman under the name of the Zimmerman Grain Company. His office will be at 601 Grain Exchange Building. He has been connected with the grain trade for many years.

A. O. Alexander, familiarly known to members of the Pittsburgh Grain and Hay Exchange as "Alex" has retired on a pension, after 38 years of service on the Exchange. He has followed the fortunes of the Pittsburgh Exchange through four different locations and its history is well known to him.

John Wickenhiser, head of John Wickenhiser & Co., of Toledo, Ohio, returned to the office the last of August after a vacation spent with his wife at his brother's place at Walloon Lake, Mich. His brother has a very fine country home there and the fishing, boating, etc., is the best in that part of the country.

R. J. Reid and J. A. Waring announce the formation of the R. J. Reid Grain Company to carry on a general commission business in cash grain and futures in the Chicago market. Both members of the company have had wide experience in the grain business as well as large acquaintance in country and terminal markets.

The Corn Belt Grain Company, of Mattoon, Ill., has been recently organized to do a general brokerage business in grain, flour, and feed. The grain department will purchase grain from country shippers for cash grain houses in the terminal markets and for millers and manufacturers of grain products. R. J. Ernst is manager of the company.

The first payment of 50 cents on the dollar has been made to the creditors by the receivers for E. W. Wagner & Co. The balance of 50 cents is represented by slow assets which as they are liquidated will be applied on creditors' claims. While no definite statement has been made, it has been asserted that there is a good possibility that eventually the creditors will be paid in full.

The Gardner-Greer Grain Company has been formed to conduct a general grain business at Memphis, Tenn., with offices in the Union and Planters Bank Building. T. B. Greer is a well known grain man at Memphis and E. R. Gardner was for many years chief grain and hay inspector for the Memphis Merchants Exchange and more recently associated with Walter Browne in the brokerage business.

Due to the poor health of Edward F. Leland, the firm of E. F. Leland & Co., of Chicago, Ill., which succeeded Ware & Leland a few years ago and which has been in the grain business for upwards of 30 years, ceased business August 31, and its good will, open trades, assets, offices, etc., were taken over and all outstanding contracts were assumed by Lamson Bros. & Co. The firm of Lamson Bros. & Co. has been in business over 50 years and is one of the best known grain and stock houses in the country. Its president, Leslie F. Gates, is a former president of the Chicago Board of Trade, and has spent a great deal of time at Washington fighting hostile legislation directed against the Board and has also been a factor in educating the public as to the economic service performed by this large and important exchange.

TAKE-ALL AND QUACKGRASS

Quackgrass has never been particularly popular in agricultural communities. It is hard to get out of a meadow, once it is started and its spreading roots cause rapid deterioration. It will be held in less favor than ever now that it has been discovered that it is the greatest harborer and spreader of Take-all, one of the most destructive diseases attacking Winter wheat.

Take-all is common in Australia and may have

been imported from there. It has been found in Illinois, Indiana, Arkansas, Kansas and Oregon within recent years, and this year has appeared in New York, some fields showing a loss of from 60 to 70 per cent on its account. Besides Winter wheat (Spring wheat is apparently immune). Take-all has been found in rye, barley and Timothy.

SCIENTIFIC FEED MANUFACTURE

The development of the prepared feed industry has passed through various stages incident to the opening of a new field of endeavor. At one time the utilization of waste products was the great aim, for it was found that livestock thrive on

SHERMAN T. EDWARDS

food unfit for human consumption, and this seemed to offer a limitless field. Feeds were compounded out of almost anything that offered, without any knowledge of animal nutrition, and without any scientific methods of preparation. Because some of these feeds were successful, extravagant claims were made for all of them, and as a consequence the mixed feed industry received such a black eye that it took years to recover, and then only after the passage of stringent feedingstuffs laws.

That was many years ago. Since then the industry has been put on a very different basis and many excellent feeds have been evolved. There are still improvements to be made, however, for the knowledge of animal feeding is increasing each year and the process of measuring exactly the various ingredients that go into feed has been improved. This development has been the result of study by many men in many countries, but it devolved upon S. T. Edwards & Co., 110 South Dearborn Street, Chicago, Ill., to effect an organization through which all feeding knowledge and all the improvements in manufacturing could be assembled and given to the trade.

Feed System Engineering, the specialty of this company, has been developed to assist feed manufacturers at every stage, and to start the new manufacturer in the right way. The services performed by the Edwards company are divided into nine groups: 1. Consulation in regard to construction and mechanical equipment for the manufacture of feed. 2. Feed formulas balanced to fit the conditions in your section of the country and utilizing as much as possible the products most available. Special formulas for the rapid growth of baby animals for meat, milk and egg production; fattening all kinds of animals for market, and milk feeding for poultry. 3. Information furnished covering the feedingstuffs laws of the different states and instructions regarding the analysis and registration of manufactured feeds. 4. Information regarding best machinery for handling, cleaning, separating, grinding, cracking, polishing, pulverizing, measuring, mixing, weighing and drying. 5. Complete continuous system for the manufacture of all kinds of feed, including measuring and automatic weighing machines, mixing and automatic bagging and sewing equipment. 6. The development of new products, the utilization of by-products and their introduction into manufactured feeds. 7. Office systems, including records and methods of figuring formulas, manufacturing costs, sales systems, advertising, method of merchandising, personal inspection of plants, readjustment of systems for the reduction of overhead expense, systems for checking the percentage of articles used in manufactured feeds. 8. Inspection of feed plants, including their general business, for banks, bonding companies, and prospective customers. 9. Appraisals of plants and auditing.

This is a large order but S. T. Edwards has been connected with the feed business for 25 years and is well equipped to render aid to anyone having problems to settle in the feed business.

NEW KANSAS CITY DRYING PLANT

Kansas City has again added to its splendid drying facilities by the installation of two 500-bushel per hour Ellis Continuous Feed Driers at the plant of the Southwestern Milling Company.

The plant which was designed by the A. E. Baxter Engineering Company, Buffalo, N. Y. is without question one of the most complete of its kind and includes besides the driers several Wolf-Dawson Wheat Washers, a complete system of steel elevating legs and automatic scales for the purpose of weighing grain in and out.

ELLIS DRIER AT SOUTHWESTERN MILLING COMPANY'S PLANT

The driers are of the very latest continuous feed type having independent motor controlled feed and variable feeding device. The control of the feed is so perfect that a range in capacity of 10 bushels to 1,000 bushels per hour is possible. The collection of all objectionable dust is provided for by a complete dust collecting system installed as a part of the driers. This is a new patented feature developed by the Ellis Drier Company, and has met with the unqualified approval of the owner and underwriter alike.

The building is a concrete structure throughout and large bin capacity is provided over both the driers and wheat washers. During the recent millers' convention in Kansas City the plant was on exhibition and received a wealth of favorable comment not only for the completeness of its equipment but on its very pleasing appearance as is attested by the photograph showing drier building appearing herewith.

DETERMINING WORLD GRAIN VALUES

BY JOHN R. MAUFF*
Secretary Chicago Board of Trade

(*This is the last of a series of three articles showing the growth of agriculture and grain marketing.)

Harnessing speculation and making it serve a public good is one of the accomplishments of the grain exchange.

Speculation under rigid rules that inculcate and enforce honesty and a square deal to all makes possible the operation of the future's market. The future's market, as has been pointed out in previous articles, provides the facilities for hedging, or commercial price insurance. Hedging in turn places grain marketing on a sound business plane with a high degree of security.

Through operation of the future's market the Chicago Board of Trade maintains a continuous market in which the farmer's grain may be sold at any hour of any business day in the year. The price received is the price established not by any individual or group of individuals but by the inexorable law of supply and demand.

Hundreds of buyers and sellers representing various interests throughout the world meet on the floor of the Board of Trade. Their opinions are widely divergent. Those who are buyers are striving to obtain their supplies at the lowest available price. Sellers, on the other hand, are bending every effort to receive the highest price consistent with conditions then obtaining.

Throughout the trading hours authoritative news comes clattering in over thousands of miles of telegraph wires. Cables report latest crop conditions in foreign wheat producing nations; they likewise note the requirements of the non-producing nations. Other wire messages make known the volume of grain moving from ports of export; they tell of transportation conditions; they tell of a crop failure or an abundant harvest; they bring the Government's production estimates, the visible supply of grain, the weather prospects in the grain belts, and information about the many factors entering into the value of grain.

All these reports of steadily changing conditions

are carefully scrutinized. The elements with which the reports deal are of paramount importance in determining the price levels at which the world buyers and sellers meet.

In such a broad competitive market, as may readily be seen, supply and demand alone finally determine values, regardless of the wishes of the producer, the merchant, the miller, the exporter or the consumer. Any attempt to depress prices below a level consistent with world values would quickly bring a rush of buying that would turn the tide the other way with unhappy results to those who had sought abnormally low prices. Conversely, any attempt to maintain prices at a high level out of proportion with world values would result in as great a rush of selling orders, with equally unhappy results for those who sought to interfere with the natural law of supply and demand. Hence any artificial price condition could be but short-lived.

In recent years some theorists have gone so far as to suggest that American producers could ignore the present economic marketing machinery, name the price they desired for their wheat, and then simply hold it for the consumer until the price was forthcoming. The thinking man will at once recognize the folly of such a suggestion. If America were the only surplus wheat-producing nation such a plan might be within the scope of possibility. But since this is not the case, the buyers of the world would soon turn to other sources, other surplus-producing nations for their supplies. American producers would find their granaries still full at the approach of another crop season. In the consuming countries of Europe the Canadian crop and the crops of Argentina, Australia and India all compete with the American crop. And every day of the year a wheat crop is being harvested in some country or countries of the world.

Besides providing the great marketing facilities and enforcing inflexible rules that guarantee fairness to all—from producer to consumer—the Chicago Board of Trade expends thousands of dollars annually in the collection and dissemination of statistics relating to agriculture and in handling serious transportation problems, many of which arise during the heavy crop-movement period.

The association has also spent fortunes in encouraging improvement in yield and quality of crops. It may be announced in this connection that the Board of Trade has renewed its offer of $10,000 in prizes for the best grain and forage crops exhibited at the International Grain and Hay Show this year. It is the fourth consecutive year that the association has contributed this premium list in the interest of better crops. Last year 3,312 samples were exhibited by American and Canadian farmers at the show, which is held in connection with the International Livestock Exposition. This show will be held early in December.

The importance of the show is obvious. It brings the farmer to the market and gives him an opportunity to compare notes on best methods of increasing his yield and of obtaining highest quality. The Board has given support to such constructive efforts all during the three quarters of a century of its existence. Members of the association realize that such activities which operate to the benefit of the producer have a correspondingly helpful effect upon the welfare of the consumer as well as upon the grain industry generally. Free broadcasting of market quotations by wireless telephone, recently inaugurated by the Board, is another step that has been welcomed by thousands of producers who are so situated as to take advantage of the service.

In the long process of agricultural evolution and the development of an economic system of grain, marketing evils have cropped up from time to time. The Board of Trade has spent huge sums in fighting these evils during the last half century. The association led the protracted battle against bucketshops and finally succeeded in having them branded as outlaws by the Government. This fight was one of the most dramatic in legal annals. It forms a colorful chapter of marketing history. It was a battle of sound, honest business principles against a commercial evil of a most destructive the insidious character. The elimination of the bucket shops have eliminated many evils that were unjustly laid at the doors of the Board of Trade.

In the upbuilding of Chicago as a world center of grain trade and in the advancement of American agriculture the Chicago Board of Trade, with its iron code of honor, has been an agency of first importance.

TRADE NOTES

The Carter-Mayhew Manufacturing Company of Minneapolis, Minn., manufacturers of the Carter Disc Separator will build a new factory in Northwest Minneapolis, at an estimated cost of $50,000. It will be a one-story brick and glass building.

The "Perfect Refinement" of seeds is the keynote of an artistic bulletin in two colors which the Albert Dickinson Company of Chicago has recently issued. "Progress" is the title of the bulletin, which is embellished by two particularly attractive sketches visualizing a stretch of pioneer country and showing it again today with the marks of progress on it.

The Dominion Government will add a grain drying plant to its grain elevator at Vancouver, B. C., at a cost of $85,000 to take care of the increased volume of grain shipments through that port. The contract for the grain drying plant and boiler house was awarded to Barnett & McQueen Company of Fort William. The entire plant will be built of reinforced concrete.

The Security Flour Mills Company of Abilene, Kan., recently wrote the Carter-Mayhew Manufacturing Company of Minneapolis, Minn., as follows: "Regarding the results obtained on the Carter Disc Separator we wish to say that we have had the machine in operation for the past seven weeks and that it has come up to our expectations in every way. Over 95 per cent flour, which, previous to installing this machine, had an ash content of from .42 to .44 now is running from .39 to .41. In regard to the tail of the machine carrying over wheat, we feel sure that it does not carry over a peck a month, and we feel sure that any mill desiring to make a high grade of goods would make no mistake in installing this machine."

On August 1 the M. A. Long Company of Baltimore, Md., took over for occupancy the entire top floor of the Horn and Horn Building, southeast corner of Guilford Avenue and Fayette Street, for their general offices. This engineering and construction firm his been expanding in its grain elevator department and specializes in grain elevators, flour mills, storage bins and tanks in any type of construction.

The Polk-Genung-Polk Company of Fort Branch, Ind., started work some time ago on the contract for six more concrete grain tanks with a capacity of 30,000 bushels, to be added to the storage plant of Igleheart Bros., millers of Evansville, Ind. This will bring the total storage capacity at the home plant of "Swans Down" up to 500,000 bushels. The new storage is now about half completed. The Polk company also has a contract from Igleheart Bros. for a new 10,000-bushel concrete house to replace the one recently burned at Martin's Switch, Ind.

Due to increasing business, it has been found necessary for the Philadelphia office of the Morse Chain Company of Ithaca, N. Y., manufacturers of Morse Chain Drives to secure larger and more desirable quarters. These have been found at 612 Franklin Trust Building at Nos. 18-22 South Fifteenth Street where the Philadelphia District manager of the company, J. A. Meaney, will welcome all the firm's customers and friends. The foregoing announcement was mailed to the trade on a Morse Chain Company folder which contained, besides interesting reading matter, illustrations of a score or more installations in large factories and mills of Morse Silent Chain Drives.

THE SUPERIOR ELEVATOR CUPS

A new company has been formed in Moline, Ill., which will conduct business under the name of K. I. Willis Corporation. This company has acquired the business of the Moline Mill Manufacturing Company of the same city, and will continue to produce the popular Superior Elevator Cups, the

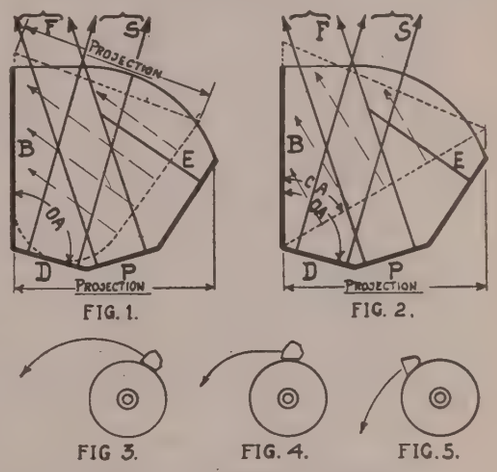

DIAGRAM OF SUPERIOR ELEVATOR CUPS

Superior line of flour and cereal machinery, and also the Superior Concentrated Flour and Cereal Mills.

The K. I. Willis Corporation is incorporated under the laws of the State of Illinois with a capitalization of $100,000. The active members of the new corporation are K. I. Willis, president, J. A. Kittilsen, vice-president, Oscar Erickson, treasurer and J. A. Gerwen, secretary and chief engineer. The new company will occupy and carry on its business on the premises of the former Willis & Sons Company at 202-210, 18th Street and 1802-1810 Second Avenue, in Moline, Ill. These shops have been considerably extended to take care of the new business and particularly of the manufacture of the Superior Elevator Cups.

The design of the Superior Elevator Cup involves a new principle which is fully covered by U. S. A. and Canadian patents granted to the inventor, J. A. Gerwen.

The accompanying drawings illustrate the principle of construction of these elevator cups. The slanted bottom surfaces *D* and *P* and the obtuse angle *OA* formed between the back *B* and the bottom *D* are essential features in the design of the Superior Elevator Cup. The first discharge *F* occurs through the throw effected by the bottom surface *P* which carries with it also the material contained between the surfaces *P* and *E*. The second discharge *S*, as the cup proceeds over the head pulley, is effected through the throw of the bottom surface *D*, which unloads the contents in a direction away from the back *B* and the belt, thus eliminating all friction and tendency to cling and assuring in this manner an absolutely free and complete discharge.

Figs. 1 and *2* show the comparative shapes between the Superior and the ordinary round and wedge bottomed cups, which latter are shown with dotted lines. The fronts of the ordinary cups have a tendency to unload against the back *B* and the belt as indicated by dashed arrows, and it is for this reason that they will work only at slow speed, dropping their contents after passing a considerable distance the top of the pulley, *Fig. 5*. In distinction to this slow unloading action the Superior Cup discharges its contents with a rapid throw.

Fig. 3 shows the unloading action of the Superior Cup at high speed, when the discharge begins before the cup has reached the top of the pulley, and *Fig. 4* shows the unloading action at medium and ordinary low speed, when the discharge begins with the cup reaching the top of the head pulley.

The most important characteristics of the Superior Elevator Cup, claimed by the manufacturers, are: They hold about one third more contents than the ordinary cups; they permit much closer spacing on the elevator belt; they discharge absolutely free at either high or low speed; they will about double the capacity—under circumstances even exceed that performance—when substituted in existing elevators for ordinary elevator cups and when spaced at the distance recommended by the manufacturers; they permit an increase of speed of the elevator head pulley of from two to three times that at which ordinary cups will perform satisfactorily, thus increasing the capacity in proportion with the increase of speed. High speed Superior Elevator Equipment will reduce the initial cost of new installations about one-half or more when compared with the cost of installations of equivalent capacity using old style cups, because high speed Superior equipment requires for equivalent capacity smaller heads, boots, pulleys, legging, belts and cups, occupies about one half the space, reduces cost of maintenance and power consumption, eliminates speed reducing gears with their countershaft, and the high speed headshaft can be conveniently used to drive directly other high speed machinery such as cleaning machinery, exhaust fans, centrifugal reels.

The K. I. Willis Corporation will be glad to have interested parties lay their elevator problems before them; they can furnish satisfactory solutions and will give the promptest and best service that can be obtained.

AUTOBIOGRAPHY OF THE WHEAT CROP

[A Cereal Story from the "Rea-Pat Tattler," Coffeyville, Kan.]

I am the Wheat Crop.

I was first killed before planting. The experts said the ground was too dry—there was no use planting—I wouldn't sprout.

Next I was killed by heavy frost, before I ever had a chance.

Then came a killing freeze that caught me unprotected by my snow blanket. That put me down for the count.

Then I pulled a comeback, keeping my eyes fixed on another freeze, only to be knifed in the back by that cowardly black rust.

My next demise came by the fine Italian hand of the Green Bug. It was an awful death. For weeks I lay in a comatose state before I finally gave up the ghost.

Just after this trying ordeal, the Hessian Fly took me in charge. When it attacked me, I completely lost my head.

Then the grasshoppers worked me over. While I pined away, they sat on my chest and "chawed terbacker." Surely an ignominious end.

When my next death came, I had become hardened. But even so the Chinch Bugs did put a most messy end to me.

My next death came when I had almost reached maturity. I had just begun to feel rather proud of having dodged smut, black chaff, scab and numerous other incidents in a wheat crop's life.

Then came the stem maggot. That was too much. Is there any wonder my head turned white? Do you wonder at my giving up? Even a cat, you know, has but nine lives to give to his country. Why should I be expected to lay down my life ninety and nine times?

While the coroner's jury sat around my lifeless body, saying "How natural he looks," I still had starch enough in me to come back, pay off the mortgage on the old homestead, send the children away to college, make the last payment on the Ford limousine, the victrola and the fireless cooker. In addition, I set the wheels of mills going throughout the land, and gave work to thousands of men. Train crews were put back to work, merchants were busy, prosperity stalked throughout the land, everyone basked in the sunshine of my golden smile.

Whatsoever doth it hurt a Wheat Crop, though he die innumerable deaths, if in dying he saveth the world?

Surely a wheat crop may be down, but it's never all out.

THE HEAT VALUE OF CORN

BY WILLIAM L. DE BAUFRE
Mechanical Engineering Department University of Nebraska

When the market price of corn goes down or when the price of coal suffers a marked change in the reverse direction, there always arises in the corn-producing states the question of whether it is not more economical to burn corn than to purchase coal for fuel. In order to answer this question, there have been conducted a series of tests by the mechanical engineering department of the University of Nebraska, to determine the heat value of corn.

Four varieties of corn—Hogue's Yellow Dent, University No. 3, Blair White and Nebraska White Prize—were tested as husked from the field, without selection, in the fall of 1921. These four varieties are representative of the different types of grain and cobs, both Yellow and White. Bulk samples of each of the four varieties were weighed as husked, then run through the corn sheller and the grain and cobs weighed separately.

The percentage of moisture in both grain and cobs of each variety was next determined by weighing before and after drying in an oven at constant temperature. Then samples of each variety were finely ground, in preparation for the heat-value determinations which were made in a bomb calorimeter.

Under the experimental conditions the heat values were obtained in a calorimeter in which the products of combustion were cooled to room temperature, which resulted in the condensation within the calorimeter of the water vapor formed during combustion. While it has become customary to base a comparison of the heat value of fuels upon such calorimeter determinations, the results are not considered fair when much water vapor is formed during combustion. The reason is that under ordinary furnace conditions the gases escape at such high temperature that the water vapor is not condensed, and consequently its latent heat (approximately 1,000 B.t.u. per lb.) is not recovered, as it is in the calorimeter. Therefore the "lower" heat value of corn, obtained by subtracting the latent heat of the water content from the calorimeter value, is the practical value to be considered.

The results of the investigation show that practically no difference exists between the heat values of the four varieties of corn, and that the heat content of the cobs per pound is practically the same as that of the grain. The average higher heat value of dry corn was 8,159 B.t.u. per lb., and of dry cobs, 8,101 B.t.u. per lb. The average lower heat values were 7,579 and 7,577 B.t.u. per lb., respectively.

There is a variation in the heat value, however, which depends upon the percentage of moisture the corn contains. At the time of maturity the grain and cobs may contain over 50 per cent of water, the cobs containing somewhat more moisture than the grain. When very dry, the grain and cobs may contain less than 10 per cent of water. The effective (lower) heat values for various percentages of moisture content are given in *Table I.*

The chief value of the investigation lies in the possibility of comparison between coal and corn as boiler fuels. For fully cured corn containing, say, 10 per cent of moisture, the effective (lower) heat value is approximately 6,700 B.t.u. per lb. A corresponding value for Pittsburg, Kan., coal is 11,800 B.t.u. per lb. Consequently, the heat value of 50 bushels of corn on the cob or of 63 bushels of shelled corn is about equivalent to that of one ton of bituminous coal. With coal at ten dollars a ton the price of corn on the cob must be less than 20 cents a bushel of 70 pounds, and of shelled corn less than 16 cents a bushel of 56 pounds, to make it more economical to burn corn than to purchase coal. This comparison does not include any allowance for the cost of handling either fuel. With coal costing more or less, the price of corn would vary in proportion, as given in *Table II.* Also for coal of better or poorer quality the price of corn would vary accordingly.

TABLE I. HEAT VALUES OF CORN AS AFFECTED BY MOISTURE CONTENT

Moisture, per Cent	Lower Heat Value B.t.u. per Pound
0	7,578
5	7,149
10	6,720
15	6,291
20	5,862
25	5,434
30	5,005
35	4,576
40	4,147
45	3,718
50	3,289

TABLE II. RELATIVE PRICES OF COAL AND CORN FOR EQUAL HEAT VALUES

Price of Pittsburgh, Kansas, Coal per Ton of 2,000 lb.	Price of Corn on Cob per Bushel of 70 lb.	Price of Shelled Corn per Bushel of 56 lb.
$10.00	$0.20	$0.16
12.00	0.24	0.19
14.00	0.28	0.22
16.00	0.32	0.26
18.00	0.36	0.29
20.00	0.40	0.32

It is interesting to note that a given amount of corn will produce more useful heat after storage than before, even though less weight of material is present, owing to evaporation of moisture during storage. Thus, a hundred bushels of corn, as husked from the field and containing, say 25 per cent of moisture, would produce about 38 million B.t.u. After storage for sufficient time to reduce the moisture to about 10 per cent, there would be present only 83.3 bushels of corn, but it would produce over 39 million B.t.u. The reason is that moisture not only contributes nothing to the heat content of corn, but really reduces the available heat by the amount required to evaporate the moisture. Thus, while corn shrinks in financial value during storage by reasons of loss in weight, this loss of moisture increases its value for heating purposes.

Reprinted from *Power*, New York.

THE GRAIN SHOW IS COMING

Pure seed means bigger, better crops and inevitable prosperity for the farmer. This has been proved by developments of the crop year just ending, according to an announcement by the executive committee of the International Grain & Hay Show.

"Greater strides toward quality and quantity crops through use of pure seed have been made during the last year than were made in the previous three years," said George S. Bridge, chairman of the Grain Show Committee of the Chicago Board of Trade.

"The International Grain & Hay Show, held in conjunction with the International Livestock Exposition, is exerting a powerful influence in crop improvement throughout the continent largely through the pure seed drive. The work of the various state and Canadian crop associations has been broadened and stimulated by the seed campaign. Results will be more than ever apparent in the quality of exhibits at this year's show which opens December 9. Farmers are now scanning their fields in hope of carrying off international honors. Besides the $10,000 prize list offered to farmers again this year by the Chicago Board of Trade for the best grain and forage crops exhibited, several additional trophies will be awarded."

"A new thought has been driven home to farmers," said Prof. W. Q. Fitch of Purdue University, assistant superintendent of the show. "It has been proved absolutely that 'strain' or 'type' is more

important in crop production than variety. In the past farmers have frequently clung to variety names long after the seed had run out and should not have been sown. This year's premium list offers the $10,000 in cash prizes for 27 different classes of grain, hay and seed without mentioning any variety in any class. This is something new in grain expositions. It is looked upon by the agronomists of the agricultural colleges, Governmental departments and farm bodies participating in the show as an important step in the right direction. Corn experts, for instance, want to grow large yields of good sound corn regardless of its variety name."

Premier corn growing honors were snatched by Illinois last year from Indiana, which up to that time had held first position at all national and international corn shows. This year's contest will be the sharpest ever staged by the two states. Several other states will also be strong contenders.

"Out of the corn contest," said Prof. Fitch, "has arisen a difference of opinion regarding the proper type for the corn belt. Indiana, Maryland and Missouri believe a rather large, moderately rough type is most desirable. Illinois, Ohio and part of Iowa prefer a smooth somewhat tapering ear of medium size. These varied views have resulted in numerous experiments intended to shed light on the question. The corn from these experiments will form part of the exhibits of state agricultural colleges and experiment stations.

"The annual show held solely in the interest of agriculture and participated in by America's leading agronomists, has become a powerful factor in crop improvement. It has already proved that pure seed means prosperity."

INSECTS INFESTING GRAIN

One of the most valuable, if not indeed the most valuable, treatises that has appeared on pests injurious to food products, is the recent bulletin published by the Minnesota Agricultural Experiment Station, prepared by Royal N. Chapman and entitled "Insects Infesting Stored Food Products". Naturally the writer gives prominence to the features that interest millers, grain dealers and others who handle cereals and cereal products. Included in this bulletin is a list of all the insects found in such plants. This is the first list of the kind and we reproduce it herewith:

INSECTS OF SPECIAL INTEREST TO GRAIN DEALERS AND MILLERS

Miscellaneous Insects—
- Cockroaches
- Ants
- Book-lice
- Lepismids
- Mites

Beetles
- Primarily in unmilled grain, elevator insects:
  - Granary weevils
  - Rice weevils
  - Drugstore beetles
  - Square-necked grain beetles
- Primarily in coarse products, bran, meal, etc.:
  - Saw-toothed beetles
  - Cadelles
  - Flat grain beetles
  - Foreign grain beetles
  - Meal worms
- Primarily in flour:
  - Confused flour beetles
  - Broad-horned and slender-horned flour beetles
  - Small-eyed flour beetles
- Found in various parts of the mill:
  - Black carpet beetles
  - Cabinet beetles
  - Small cabinet beetles
  - Museum beetles

Moths—
- Primarily in unmilled grain, elevator moths:
  - Angoumois grain moths
- Primarily in coarse milled products, bran, meal, etc.:
  - Indian meal moths
- Primarily in flour:
  - Mediterranean flour moths
  - Meal snout moths

While it is not difficult to avoid getting grain that is infested either through official inspection or the dealer's own, returned sacks and other material possibly infested, are much harder to control. Insect eggs are not easily seen, and sacks may seem free from infestation when as a matter of fact they may contain thousands of eggs that may hatch in a few days. Cleaning may not clean all the eggs out. The only safe way is to heat or fumigate the sacks before they are brought into the plant.

FROM the opening of navigation to August 23 a total of 72,123,621 bushels of grain was handled at Montreal, as compared with 68,757,240 bushels last year. The port's highest grain record previous to 1921 was made in 1914, in which year, from the opening to the close of navigation, 75,361,829 bushels of wheat, corn, oats and barley were shipped; a figure that is little greater comparatively than this season's total for half a year. In 1921 grain shipments for the season amounted to 138,453,380 bushels, more than was shipped from any other port in the world, and it is confidently expected that this figure will be beaten in 1922.

ACTUAL EXPORTS OF RUSSIAN CEREALS

So much has been written about Russian exports of wheat and rye in the past and the possibility of their revival some time in the future, that it may be well to survey the actual figures. The average Russian exports of wheat and wheat flour and of rye and rye flour, for the three prewar years 1911, 1912 and 1913 were as follows:

Wheat	120,389,864 bushels
Wheat flour	1,459,974 barrels
Rye	24,672,566 bushels
Rye flour	1,376,761 barrels

Besides these exports of bread grains and flours, Russia also exported annually an average of 59,000,000 bushels of oats, 162,000,000 bushels of barley and 33,000,000 bushels of corn, or 254,000,000 bushels of coarse grains.

It is fair to assume that all the flour was used for human food. Reducing the wheat and rye to flour, we find that they must have made 28,000,000 barrels of flour, which added to the flour exported, would make about 31,000,000 barrels. At our American rate of consumption this would mean the food of 31,000,000 people; at the British rate, about 27,000,000 people.

It seems incredible that the world could get along without these huge imports of foodstuffs from Russia. But it has and instead of the rest of the world being discommoded it has got along very well, while Russia itself has been starving.

WORLD WHEAT PRODUCTION

The total world production of wheat this year, excluding Russia and Mexico, is estimated by the United States Department of Agriculture at 3,019,526,000 bushels, based on actual estimates from reporting countries and estimates based on condition reports. Production in 1921 was 3,059,596,000 bushels, and for the prewar 1909-13 average 2,890,353,000 bushels.

Decreases occur in nearly all European countries. Total European production is estimated at 1,100,991,000 bushels, compared with 1,239,256,000 bushels in 1921, and a prewar 1909-13 average of 1,275,157,000 bushels, British India and Japan will have 392,847,000 bushels, compared with 282,094,000 bushels last year, and 375,827,000 bushels, the prewar average. Both Canada and the United States show increased production over last year with a combined estimated outturn of 1,125,968,000 bushels, compared with 1,095,751,000 bushels in 1921, and 883,810,000 bushels, the 1909-13 prewar average.

Russia reports favorable crop conditions, and according to advices from all sources will be able to feed herself this year. Last year Russia imported wheat. Production figures for Mexico are not available, but last year 5,089,000 bushels was produced, according to an unofficial estimate, compared with the 1909-13 average of 9,995,000 bushels. For Africa, a total production of 57,587,000 bushels is estimated, compared with 81,398,000 bushels in 1921, and with the prewar 1909-13 average of 73,134,000 bushels.

Total production in the Northern Hemisphere, according to actual estimates from reporting countries, will be 2,200,650,000 bushels, compared with 2,143,979,000 bushels in 1921, and with 2,020,276,000 bushels, the prewar average. Estimates made by the United States Department of Agriculture based on condition reports bring this total up to 2,677,393,000 bushels, compared with 2,697,499,000 bushels in 1921, and with a prewar average of 2,607,928,000 bushels. Total production in the Southern Hemisphere for the last harvest season is estimated at 342,133,000 bushels, compared with 362,097,000 bushels in 1921, and with 282,425,000 bushels, the 1909-13 prewar average. The acreage of the growing crop in Argentina is estimated to be larger than that of the crop just harvested.

CANADIAN RYE GRADES

No. 1 Canada Western rye shall be sound, plump and well cleaned, and shall weigh not less than 56 pounds to the bushel.

No. 2 Canada Western rye shall be sound, reasonably clean. Shall not contain more than 2 per cent of wheat and shall weigh not less than 56 pounds to the bushel.

No. 3 Canada Western rye. Commercial grade. Shall be reasonably clean. May contain singly up to 5 per cent of wheat or up to 3 per cent of barley and shall weigh not less than 55 pounds to the bushel.

Rejected rye shall include such as is unsound or from any cause unfit to be graded as No. 3 Canada Western.

All rye containing over 5 per cent of wheat, 5 per cent wild oats or 3 per cent of barley up to 7 per cent will be graded rejected to the grade it belongs with a dockage to remove other foreign matter.

All rye containing over 7 per cent of wheat or 7 per cent of barley will be graded rye and wheat mixed, or rye and barley mixed, with dockage to remove other foreign matter.

FREE GRAIN STORAGE

The question of free storage of grain is continually coming up to plague elevator operators. Most of the grain states have laws which govern this practice, usually under a warehousing law, and every dealer should become familiar with the law in his state. George Wells, secretary of the Western Grain Dealers Association, says, regarding the Iowa law:

"The practice of giving free storage of grain to the farmers is unbusiness-like and unreasonable. In doing so you give a service without compensation that you are under no obligations whatever to do. Storing of grain is a service and is so recognized by some of the state warehouse commissioners and a fixed charge is provided therefore and is compulsory. There is no law in this state governing the storing of grain unless the grain dealer takes out a license under the new warehouse law (which is not compulsory) and becomes a public warehouseman. If interested in the public warehouse law, write George L. McCaughan, secretary of the Iowa Board of Railroad Commissioners, for a copy of the law and also of the regulations promulgated by the Board of Railroad Commissioners who have supervision under this law. The usual charge for storage in country elevators is 15 days free and one-half cent per bushel for each 15 days thereafter."

The following one day's entire export sales is typical of sales made recently: 500,000 bushels wheat; 200,000 corn; 50,000 oats.

TENTATIVE STANDARD HAY GRADES

The following tentative grades for hay were presented to the trade by W. A. Wheeler and H. B. McClure of the U. S. Department of Agriculture at the New York State Hay & Grain Dealers Association at Syracuse, on August 24. The abstract of the standardization plan is as follows:

Pursuant to the authority conferred upon the Secretary of Agriculture by law, the following definitions and limitations are recommended as the United States grades for Timothy hay, Clover hay, Timothy and Clover Mixed hay, Mixed Grass hay and Timothy and Grass Mixed hay.

Section 1.—Hay.—Hay shall include grasses, legumes and other crops cut and cured without being threshed, hulled or otherwise having the seed removed.

Section 2.—Basis of determinations.—Each determination of foreign material, injurious foreign material, temperature and odor shall be upon the basis of the hay, including foreign material. All other determinations shall be upon the basis of the hay when free from foreign material.

Section 3.—Percentages.—Percentages of foreign material and mixtures of various kinds of hay shall be by weight. Percentages of color shall be by count.

Section 4.—Foreign material.—Foreign material shall include weeds, sedges, rushes, cornstalks, stubble and injurious foreign material. The quantity of foreign material shall be calculated in terms of percentage based on the total weight of the hay, including the foreign material. When the percentage of foreign material so calculated exceeds the maximum allowable per centum stated in the grade, it shall be stated in terms of the nearest multiple of 5 per centum and when less than such maximum it shall not be stated. The percentage of foreign material so determined and stated shall be added to the grade designation.

Section 5.—Injurious foreign material.—Injurious foreign material shall include briers, cocklebur, sandburs, poisonous plants, stones and similar matter which might be injurious for feeding purposes. The quantity of the injurious foreign material shall be calculated in terms of percentage based on total weight of the hay, including foreign material. The percentage of the injurious foreign material so determined shall be stated and added to the grade designation. The grade which the hay would otherwise be, if the injurious foreign material were not present, shall also be stated.

Section 6.—Clover.—Clover shall include June or Medium and Mammoth Red Clover and Alsike Clover.

Section 7.—Other legumes.—Other legumes shall include Alfalfa, Sweet Clover, Crimson Clover, Lespedeza, Vetches, Bur Clover, Black Medick and others which are palatable and have a recognized feeding value as hay.

Section 8.—Other grasses.—Other grasses shall include Red Top, Orchard, Kentucky Blue, Canada Blue, Meadow Fescue, Quack and other cultivated and wild grasses which are palatable and have a recognized feeding value, and which frequently occur in Timothy meadows.

Section 9.—Class and subclasses.—Timothy hay, Clover hay, mixtures of Timothy and Clover hay, mixtures of Timothy hay and other grasses, and mixed grasses shall be divided into classes and subclasses as follows:

CLASS I.—Timothy Hay.—This class shall include all Timothy hay containing not more than 5 per centum of Clover, other legumes and other grasses either separately or in any combination.

CLASS II.—Timothy and Clover Mixed Hay.—This class shall include all mixtures of Timothy and Clover containing more than 5 per centum and less than 90 per centum of Clover, and not more than 5 per centum of other legumes and other grasses. This class shall be divided into four subclasses.

CLASS III.—Clover Hay.—This class shall include all Clover hay containing not more than 10 per centum of Timothy, other legumes and other grasses, either separately or in any combination.

CLASS IV.—Mixed Grass Hay.—This class shall include all mixtures of other grasses containing less than 10 per centum of Timothy, and not more than 5 per centum of Clover or other legumes either separately or in any combination.

CLASS V.—Timothy and Grass Mixed Hay.—This class shall include all mixtures of Timothy and other grasses containing more than 5 per centum but not more than 90 per centum of other grasses and not more than 5 per centum of Clover or other legumes either separately or in any combination. This class shall be divided into four subclasses.

GRADE REQUIREMENTS

Grades for Timothy Hay.—This class shall be divided into six grades, the designations and requirements of which, respectively, shall be as specified in this section.

Grades for Clover Hay.—This class shall be divided into four grades, the designations and requirements of which, respectively, shall be as specified in this section. U. S. No. 1 Clover shall be cut not later than when one-half of the heads have begun to turn brown.

Grades for Timothy and Clover Mixed Hay.—The sub-classes Light Clover Mixed and Medium Clover Mixed shall be divided into six grades each, and the sub-classes Heavy Clover Mixed and Very Heavy Clover Mixed shall be divided in four grades each, the designations and requirements of which, respectively, shall be as specified in this section.

Grades for Timothy and Grass Mixed Hay.—The subclasses Light Grass Mixed and Medium Grass Mixed shall be divided into six grades each, and the subclasses Heavy Grass Mixed and Very Heavy Grass Mixed shall be divided into four grades each, the designations and requirements of which shall be as specified in this section.

U. S. Choice, Nos. 1, 2, 3 and 4 Light Grass Mixed, and U. S. Choice, Nos. 1, 2, 3 and 4 Medium Grass Mixed, each (a) shall contain only such Timothy as meets the requirements of the grade U. S. Choice, Nos. 1, 2, 3 and 4 Timothy; (b) shall contain only such other grasses as meet the requirements of the grade U. S. Nos. 1, 2, 3 and 4 Mixed Grass; (c), (d) and (e) repeated.

U. S. No. 1 Light Grass Mixed, U. S. No. 1 Medium Grass Mixed, U. S. No. 1 Heavy Grass Mixed, and U. S. No. 1 Very Heavy Grass Mixed, each (a) shall contain only such Timothy as meets the requirements of the grade U. S. Nos. 1, 2, 3 and 4 Timothy; (b) shall contain only such other grasses as meet the requirements of the grade U. S. Nos. 1, 2, 3 and 4 Mixed Grass; (c), (d) and (e) repeated.

U. S. Choice and Nos. 1, 2, 3 and 4 Light Clover Mixed, and U. S. Choice and Nos. 1, 2, 3 and 4 Medium Clover Mixed, each (a) shall contain only such Timothy as meets the requirements for the grade U. S. Choice, Nos. 1, 2, 3 and 4 Timothy; (b) shall contain only such Clover as meets the requirements of the grade U. S. No. 1, Nos. 1, 2, 3 and 4 Clover; (c) shall not be hot, wet, musty, moldy, nor have any objectionable odor; (d) may contain not more than 5 per centum of foreign material, and (e) shall contain no injurious foreign material.

U. S. Nos. 1, 2 and 3 Heavy Clover Mixed, and U. S. Nos. 1, 2 and 3 Very Heavy Clover Mixed, each, (a) shall contain only such Timothy as meets the requirements of the grade U. S. Nos. 1, 2 and 3 Timothy; (b) shall contain only such Clover as meets the requirements of the grade U. S. Nos. 1, 2 and 3 Clover, etc., for (c), (d) and (e).

U. S. Sample Grades above subject to usual sample grade specification.

Grades for Mixed Grass Hay.—This class shall be divided into four grades, the designation and requirements of which, respectively, shall be as specified in this section.

Grades for Timothy and Grass Mixed Hay.—The subclasses Light Grass Mixed and Medium Grass Mixed shall be divided into six grades each, and the subclasses Heavy Grass Mixed and Very Heavy Grass Mixed shall be divided into four grades each, the designations and requirements of which shall be as specified in this section.

U. S. Choice, Nos. 1, 2, 3 and 4 Light Grass Mixed, and U. S. Choice, Nos. 1, 2, 3 and 4 Medium Grass Mixed, each (a) shall contain only such Timothy as meets the requirements of the grade U. S. Choice, Nos. 1, 2, 3 and 4 Timothy; (b) shall contain only such other grasses as meet the requirements of the grade U. S. Nos. 1, 2, 3 and 4 Mixed Grass; (c), (d) and (e) repeated.

U. S. No. 1 Light Grass Mixed, U. S. No. 1 Medium Grass Mixed, U. S. No. 1 Heavy Grass Mixed, and U. S. No. 1 Very Heavy Grass Mixed, each (a) shall contain only such Timothy as meets the requirements of the grade U. S. Nos. 1, 2, 3 and 4 Timothy; (b) shall contain only such other grasses as meet the requirements of the grade U. S. Nos. 1, 2, 3 and 4 Mixed Grass; (c), (d) and (e) repeated.

TABULATION OF GRADE REQUIREMENTS

Sections 10 to 14, inclusive, of the United States grades for Timothy hay, Clover hay, Timothy and Clover Mixed hay, Timothy and Grass Mixed and Mixed Grass hay, tabulated and abridged. (The numbered footnotes below must be read in connection with the tabulation):

	Timothy Class and Timothy in Timothy and Clover Mixed and Timothy and Grass Mixed Classes.				Clover Class and Clover in Timothy and Clover Mixed Class.	Mixed Grass Class and Other Grasses in Timothy and Grass Mixed Class	
	Maximum Percentage of—					Maximum Percentage of—	
Grade No.[1]	Brown Leaf Surface.	Brown or Bleached Heads.	Bleached or Off-Colored Stems.	Latest Time of Cutting the Timothy.	Color.	Brown Leaf Surface.	Bleached or Off-Colored Stems.
U. S. Choice[2]	5	0	0	Beginning of blooming period.	Green to greenish brown.	..	..
U. S. No. 1	40	2	5	Full bloom.	Green to greenish brown.	..	..
U. S. No. 2	70	10	20	Half seed in dough stage.	Greenish brown to brown.	70	25
U. S. No. 3	90	35	50	Two-thirds of seed mature.	Dark.	100	75
U. S. No. 4[2]	100	100	100	More than two-thirds seed mature.	Dark.	100	75
U. S. Sample	Hay of appropriate class or subclass which does not come within requirements of above grades.						

[1]The hay in grades U. S. Choice to U. S. No. 4, inclusive, shall not be hot, wet, mouldy, musty, have any objectionable odor or contain any injurious foreign material and the total percentage of foreign material shall not be more than 5 per centum, except that only 2 per centum shall be allowed in the U. S. Choice Timothy and not more than 7 per cent in all grades of the class Clover and subclasses Heavy Clover Mixed and Very Heavy Clover Mixed.

[2]The grades U. S. Choice and U. S. No. 4 occur only in the class Timothy, the subclasses Light Clover Mixed and Medium Clover Mixed and the subclasses Light Grass Mixed and Medium Grass Mixed.

PERCENTAGE OF MIXTURES IN CLASSES AND SUBCLASSES

Section 9 of the U. S. Grades for Timothy Hay, Clover Hay, Timothy and Clover Mixed Hay, Mixed Grass Hay and Timothy and Grass Mixed Hay, tabulated and abridged.

	Timothy		Clover		Other Grasses		Other grasses and other legumes	Clover and other legumes
	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Maximum.	Maximum.
I.								
Timothy	95	100—	0	[1]5	....	....	[1]5	....
II.								
Timothy and Clover Mixed.								
Light Clover Mixed	80	95—	5—	15	....	....	5	....
Medium Clover Mixed	60	85—	15—	35	....	....	5	....
Heavy Clover Mixed	30	65—	35—	65	....	....	5	....
Very Heavy Clover Mixed	5	35—	65—	90	....	....	5	....
III.								
Clover	0	[2]10	90—	100	....	....	[2]10	....
IV.								
Mixed grass	0	10—	....	....	85—	100	....	5
V.								
Timothy and Grass Mixed.								
Light Grass Mixed	80	95—	....	....	5—	15	....	5
Medium Grass Mixed	60	85—	....	....	15—	35	....	5
Heavy Grass Mixed	30	65—	....	....	35—	65	....	5
Very Heavy Grass Mixed	5	35—	....	....	65—	90	....	5

[1]Includes Clover, other legumes and other grasses.
[2]Includes Timothy, other grasses and other legumes.

IN EXPLANATION

The object of the hay standardization studies is to ascertain the best standards to use in making Federal inspection of hay. Heretofore standards, or, more properly speaking, grades, have been formulated solely by trade associations. One important phase of our work has been a very careful and exhaustive study of existing grades to find out if they could be used as Federal grades. The preliminary work consisted of a study of hay marketing methods in practically every important city market, producing and consuming section. The trade was asked to express their views concerning the use and value of present grades and also to make suggestions showing how improvements could be effected. To sum up briefly, it was found that the trade in general does not adhere strictly to the use of present grades, but supplements them with many private or regional grades. It was found that while there was considerable dissatisfaction regarding present grades the trade had no clear cut ideas as to just how grades should be changed.

Hay standardization work proper was started at Alexandria, Va., in the fall of 1920 with a force of three investigators. It was decided that all work should be along practical lines and that the making of intricate scientific grades involving the use of methods or apparatus not suitable for use under actual marketing conditions should be avoided.

Our first studies of color of Timothy consisted of studying all the samples sent in as representing each grade. We had hoped that by this method we could get a fairly accurate idea of the color requirements of each grade. However, we were greatly disappointed when we compared the color of the different samples of any one grade because of the lack of uniformity in each and every grade. The variation of color within grade was so pronounced that we realized that it would be necessary to have some definite method of defining or ascertaining color. This led to our present method of color analysis.

In comparing two samples it is not always possible to explain the difference in color except to say that one is better than the other. I finally came to the conclusion that differences of opinion regarding color was due to looking at too much hay or the color of hay as a whole. It was then decided to examine hay for color, noting the color of each leaf, the head, tip and butt of hay, stalk by stalk. To the trade color in Timothy means but one thing, the color of the mass of hay expressed in such terms as "bright," "fair," etc., while color to us refers to from three to five parts of the Timothy stalk.

In making a color analysis for the purpose of ascertaining accurately the color of Timothy it is customary, with an average sample, to record the amount of brown or off color for each leaf, the head, the tip and butt of 100 or more stalks. In case of too great variation in the color form, as indicated by the relative position of the marks in the various columns, 250 or 300 stalks may be run until we are satisfied that the analysis is representative of the entire sample.

Brown leaf-surface is the total brown surface of all of the leaves. For example, a stalk of Timothy with four leaves having the lower leaf entirely brown, the next leaf one-half brown and each of the two remaining leaves one-fourth brown would have the equivalent of two entirely brown leaves, making the brown leaf surface of the stalk amount to 50 per centum. The color analysis method makes it possible to use figures instead of adjectives in comparing the color of samples of hay that are sometimes incorrectly placed in the same grade. The use of this method gave us an accurate means of learning the average color as well as the extremes in samples submitted by the trade.

Hay Dealers' Interpretation of Grades

Color analyses were made for all of the country

shippers' samples and compared with the color analyses of the samples submitted by southern distributors. (See table below):

Grade.	Per cent of Brown Leaf-Surface. Actual amount shown by color-analysis.	Per cent of Brown Leaf-Surface. Amount estimated by country shipper.	Per cent of Brown Leaf-Surface. Amount estimated by Southern dealer.	Per cent of Brown Leaf-Surface. Actual amount shown by color analysis.
	%	%	%	%
No. 1 Timothy	72.20	24.00	19.80	70.72
Standard	77.25	9.00	62.00	75.00
No. 2 Standard	81.40	40.50	43.75	23.92
No. 3 Standard	80.90	58.60	48.57	86.42
Range between Nos. 1 and 3	8.7	34.60	28.7	15.7

The old grade (1920) allowed some brown blades in No. 1. As the grades committee never attempted to define the amount of brown blades, it is interesting to see how the trade interpreted the word "some." The average estimate of brown leaf-surface in country shippers' samples is 24 per cent, whereas the actual amount revealed by color anlysis method showed that there was 72.20 per cent of brown leaf-surface.

The Southern dealers' estimate on No. 1 samples was about 4 per cent lower, while the actual brown leaf-surface was 70.72 per cent, or about 2 per cent lower than the color of the country shippers' samples. It is interesting to note that there is a range of only 8.7 per cent brown leaf-surface between No. 1 and No. 3 Timothy for country shippers' samples. This is less than half of the range there should be between No. 1 and the next lower grade. In other words, the analysis showed that all of the samples submitted for four different grades should rightly be placed in one grade. The percentum of off-colored heads and stems in the different grades failed to show the proper range or variation.

Color of Inspectors' Samples

A tabulation of color analyses of samples submitted by inspectors is shown in table below:

Grade.	Actual Percentum of Brown Leaf Surface.	Actual Percentum of Off-Colored Heads	Actual Percentum of Off-Colored Stems
	%	%	%
No. 1 Timothy	48	5.0	20
Standard	66	10.5	28
No. 2 Timothy	83	42.6	56
No. 3 Timothy	85	53.0	49
Range between Nos. 1 and 3	37%	48%	29%

It is interesting to note that the inspectors' interpretation of some brown leaves is 48 per cent, which is 24 per cent lower than the country shippers' interpretation of the amount of brown leaf-surface allowed in No. 1 Timothy. This will perhaps account for the belief on the part of certain shippers, when the market has slumped, that inspectors grade too severely. However, as a matter of fact, the allowance of 48 per cent of brown leaf surface for the best grade of Timothy is entirely too high for the reason that in tabulating to get this average samples containing as high as 88 per cent of brown leaf-surface were included.

Mixture Studies

Studies of mixture were begun simultaneously with color studies because it was noted that the percentum of mixture seemed to vary more than the rules allowed. It is rather remarkable fact that it took almost 30 years before standards made an allowance for foreign matter in market hay. A study of foreign matter in samples of grades not supposed to contain any such matter led to some startling discoveries.

Practically no progress was made in studying mixture until we began to make separation analyses of hay. And before this could be successfully carried out it was necessary to invent the separation table, which is designed to be of great assistance in taking care of separated material. The investigators could not believe that anyone today was in position to be certain of their estimate of mixture because there was no known method of checking up on estimates of mixture. Hence we decided to first make an estimate of mixture of every bale sample before it was opened and afterwards see how near we came to guessing the percentum of different material in the bale. By this method it is also possible to ascertain definitely the possibility of training men to have a more accurate knowledge of mixture.

After each investigator has made an independent estimate of color and mixture on the unopened bale it is opened up and the "charges" spread out on a specially constructed table so that an average light may be obtained while selecting a charge for separation and color analysis, which are often made at the same time. The variation in mixture in a badly mixed bale is shown in the table below:

	Sample No. 1—High in timothy and low in grass hay.	Sample No. 2—Low in timothy and high in grass hay.	Average of samples 1 and 2.	Sample No. 3—Selected as an average of the entire bale.
	%	%	%	%
Timothy	69.54	17.56	43.55	44.41
Clover	2.19	0.14	1.16	0.34
Grass hay	22.88	76.18	49 53	48.10
Weeds, etc.	4.55	1.55	3.05	3.24
Indeterminable matter	0.84	4.57	2.71	3 91

The hay shown in the table came from an old rundown Timothy meadow and represents a class of hay that is not often found in the large markets of the Central States. Such hay is usually graded as No. 3 Timothy in spite of the fact that it is too low in Timothy to meet the grade requirements. In some of the eastern markets considerable hay composed of "other" grasses is graded as No. 3 notwithstanding the fact that when properly cut and cured it may be more nutritious than Timothy.

Separation Analysis of Dealers' Samples

Analysis of samples submitted by dealers is of especial interest when considering the amount of foreign matter found therein. The analysis of country shippers' samples showed that every one contained more than 2 per cent of foreign matter; the highest weed content was 41 per cent and the shippers' estimate was 20 per cent of foreign matter; one shipper failed to see any weeds in a sample containing 26 per cent of weeds; one-third of the samples contained more than 20 per cent of foreign matter; the average foreign matter content was 17.70 per cent and the average estimate of foreign matter was 7.03 per cent.

The ability to estimate mixture correctly is a matter that has received but little attention by trade associations when formulating grades. Indeed, there has been no means by which one could know when hay was being classed correctly by dealers or inspectors. There is very little use in having several classes of hay if there is no way of knowing whether inspectors can correctly classify hay. Some interesting data has been obtained by comparing investigators' estimate with separation analyses by dealers, as follows: The first 50 samples separated containing more than 75 per cent of Timothy, a perfect estimate equaling 100:

Average of	Dealers' estimate.	Investigator's estimate.
First 10 samples	80	78
Second 10 samples	80	86
Third 10 samples	87	90
Fourth 10 samples	81	90
Fifth 10 samples	83	91

The 50 samples shown in the table represent the easiest kind of hay to judge, inasmuch as many of them were almost straight Timothy. The investigator who estimated mixture had no practical experience in marketing hay and it is very interesting to note that he made a steady progress in ability to estimate mixture and surpassed experienced hay men after judging only 10 samples. The following table shows the investigator's ability to judge hay and gives his rating for the first 100 samples estimated. This number is probably less than the number of carloads the average dealer handles in six months' time.

Estimate on	Dealers'	Investigator's
	%	%
Mixture (different hays)	77	84
Foreign matter	66	89
Mixture and foreign matter	53	77
Color	48	88
Color and mixture	32	75
Color, foreign matter	24	78
Color, mixture and foreign matter	24	68

The data in the table indicates very strikingly the need for having trained inspectors who have reached a suitable degree of proficiency before taking up their duties. The dealers' estimated color, mixture and foreign matter correctly about one time out of four, whereas a comparatively small amount of training enabled the investigator to judge hay correctly two-thirds of the time. By studying a large number of bale samples which have been analyzed for color, mixture and foreign matter, it will be possible to train inspectors so they will have a much higher rating than those who have never had a means of checking up their estimates, as is done for moisture in grading corn. Standard color samples will also greatly assist inspectors and dealers in fixing in mind the actual color requirements of the different grades.

If one could see just how much of each kind of material is contained in the hay he handles he would often be very much surprised and could protect himself against losses. There are on exhibit eight separation analyses. The duplicate unseparated sample, accompany each exhibit, shows how the hay looks before each different kind of matter is picked out and kept by itself and weighed to get the percentum. A careful examination of the shipper's and receiver's grade as compared to the acutal contents and color, will undoubtedly show the need for placing the inspection and marketing of hay on a higher business basis.

Color Changes in Timothy Week by Week

It is an old saying that "color sells Timothy." Our study of market samples showed that as the stage of maturity advances there is also a corresponding change in color, provided the hay is cured under average conditions, as shown in this table:

Showing the Increase in Percentum of Brown Leaf-Surface Week by Week and Average for Each Week for Ordinary Timothy at Elyria, Ohio

Date	Brown leaf-surface.	Brown leaf-surface. Average for week following.
	%	%
June 15th	15.00	18.00
June 22nd	25.00	33.00
June 29th	45.00	57.00
July 6th	70.00	78.00
July 13th	85.00	89.00
July 20th	97.00	All brown

The brown leaf-surface is for Timothy when cut, as the color analyses were made within two hours from the time the sample was collected. If the samples had been left out in the field to cure in the ordinary manner there would have been a considerable increase in brown leaf-surface, depending upon the weather, method of curing, etc.

Hay cut on June 15, when the plant was coming into full bloom, would under ordinary conditions make No. 1 hay. The chart shows very clearly why hay cut after July 1 must of necessity be a low grade on account of the large percentum of brown leaf-surface at the time of cutting.

Nutritive Value of Brown and Green Leaves

Practically no investigational work has been done to ascertain the relative nutritive or feeding value of green and brown leaves. If there is a noticeable difference in the feeding value of green and brown leaves then grades should take this fact into consideration. Some work has been done along this line, as shown in the table:

	Green leaves.	Brown leaves.
	%	%
Moisture	6.98	6.66
Ash	8.44	8.45
Ether extract	4.76	5.26
Protein	9.94	3.41
Crude fiber	36.90	26.76
Nitrogen free extract	33.68	49.46
Total	100.00	100.00

The analyses bear out the theory that leaves having a good or natural color are more valuable for feeding than leaves having a poor or brown color.

After more than 200 analyses of color had been made of samples collected from hay dealers it was decided to tabulate to see if there was some definite co-relation between (1) percentum of grown leaf-surface and the color of the heads and stems of Timothy and (2) between the percentum of brown leaf-surface and the stage of maturity at which Timothy is cut. Work plainly shows that there is a definite relation between the amount of brown leaf-surface and the amount of off-colored stems (including color of butts and tips) and off-colored heads. The table shows how these factors are tied up with stage of maturity:

Color Hard to Judge

The study of color analysis of inspectors' samples did not lead to the conclusion that inspectors do not know good hay when they see it, but that without having an exact definition of color requirements, there is bound to be quite a variation in the color of samples selected to represent the same grade. For example, Timothy having fairly green stems but brown blades may be graded No. 1 solely on account of the color of the stems. Many other reasons might be cited to show that there could be considerable variation in judging hay under various conditions.

Stage of Maturity When Cut

Grade	Before bloom	In bloom	Seed in dough	Seed ripe
	Pct.	Pct.	Pct.	Pct.
Choice	**95 00**	5.00		
No. 1	12.61	**52.80**	30.39	4.00
No. 2	2.61	27.41	**44.31**	25.67
No. 3	1.06	16.84	20.00	62.10
No. 4	0.50	12.40	12.90	**74.20**

This table allows definite statements to be made regarding the stage of maturity at which Timothy should be cut in order to secure the five grades of hay: Choice shall be cut not later than the beginning of the blooming period.

No. 1 shall be cut not later than full bloom.

No. 2 shall be cut not later than when half of the seed have reached the dough stage.

No. 3 shall be cut not later than when two-thirds of the seed are mature.

No. 4 may be cut after two-thirds of the seed are mature.

Mixture Limitations for Classes

Mixture is not a grading factor at all. It is a factor to be used in placing hay in the proper class. By having but one grading factor, color, we very greatly simplified matters. The next problem to solve was the matter of number of classes and mixture limitations for the various classes. Grading Timothy and its mixtures is a rather difficult problem inasmuch as it includes straight Timothy, straight Clover and straight "other" grass hay and their mixtures.

It was decided to make a distinct class for Timothy and Clover mixtures and a separate class for mixtures of Timothy and "other" grass hay. This was done because the requirements for any class and grade should specifically state just what kind of hay may be included. The old practice of allowing either Clover or "other" grass is simply a hindrance because present grade certificates do not specify what kind of hay is mixed with the Timothy.

It is very seldom that conflicting mixtures occur. A conflicting mixture is one in which there is a comparatively large amount of the third kind of hay, as for instance a mixture composed of Timothy 40 per cent, Clover 30 per cent and "other grass" 30 per cent. The conditions under which it is possible for this kind of hay to occur are to be found only when the meadow has remained too long for hay and the chances are that there would not be 30 per cent of Clover if 30 per cent of volunteer "other" grass had come into the meadow. Large amounts of Clover in grassy mixed hay must of necessity be volunteer Clover, especially Alsike Clover. In our system of classing hay conflicting mixtures will be classed as Sample hay, with a statement of the amounts of each kind of hay present.

Those who are expecting severe changes in the classes will find that our classes are practically the same as are found in present grades. In making mixture limitations one very important factor has been kept in mind, i.e., the ability of the trade to estimate or learn to estimate mixtures. It is comparatively easy to estimate 5 per centum or under of Clover or "other" grass. The Light Mixed class contains from 5 to 15 per cent of other hay. The average amount of mixture desired in this class is 10 per cent and by allowing a 5 per cent variation either way from 10 per cent this class will be fairly easy to identify. After the Clover content gets past 15 per cent it becomes more difficult to estimate accurately, and consequently there is more range in the Medium class than in the Light Mixed class. The Medium Mixed class is supposed to include hay containing 25 per cent of mixture and allows a variation of 10 per cent either way from 25 per cent.

The Heavy Mixed class takes in a half and half mixture and in order to allow for variation in estimating mixture this class carries hay containing from 35 to 65 per centum of mixture. The very Heavy Mixed class also allows enough variation in mixture so that it will not be impracticable to estimate mixture for this class.

A careful checking up of present grades will show that one must be very accurate in order to know he is classing hay correctly. In the old National Hay Association grades one grade allowed 75 per cent of Clover and another allowed 80 per cent of Clover. As a matter of fact it would be impossible for one to estimate that close in such heavy mixtures.

Foreign Matter

The question of how much foreign matter should be allowed in our grades has received considerable study. Separation analyses show that hay entirely free from foreign matter is seldom grown. It is hardly fair to exclude all foreign matter from hay. Neither is it fair to good hay growers to say nothing about foreign matter as has been done for many years, and allow very weedy hay to compete with the hay comparatively free from weeds, stubble, etc. A very liberal allowance has been made for foreign matter. Choice grades allow 2 per centum of foreign matter. Heavy Very Heavy Clover Mixed and Clover hay may have a maximum of 7 per centum of foreign matter and all other grades may have a maximum of 5 per centum of foreign matter.

When hay contains more than the maximum allowance of foreign matter it is graded its real grade with a statement of the excess amount of foreign matter stated in multiples of five. For example, hay would be graded No. 1 Light Clover Mixed containing 10 per cent of weeds, or stubble, etc.

NOW that the Gowanus Bay Elevator is completed in the New York Harbor, a demand is being made for the completion of the state elevator at Oswego on Lake Ontario. The foundation is already laid.

CHIEF Inspector Metz of the Port Arthur (Texas) Chamber of Commerce and Shipping reports wheat clearances during August amounting to 708 000 bushels, compared with 1,185,900 bushels in August 1921 and 445,236 bushels in August 1920.

NEWS LETTERS

DULUTH

S. J. SCHULTE - - CORRESPONDENT

OFFICIALS of the Minnesota state inspection bureau here have reported the presence of considerable foreign matter in grains handled so far this season, that being especially the case with oats. On that account inspections are being delayed from day to day with the result that commission men have been receiving their samples so late that they have been finding themselves rushed to market their consignments in sufficient time to report the same day. The holding over of cars on track means extra charges for demurrages. Demands for reinspection have also been more frequent so far than during average seasons. In view of these conditions grain men are urging necessity of more careful cleaning by growers before forwarding their supplies to the markets.

* * *

Recent transfers in Duluth Board of Trade memberships included the following: Membership of Frank S. Cowgill to J. W. McCulloch of Chicago; George W. Higby to John W. Ericson of H. L. Hankinson & Co; of Henry Nelson to H. G. Dickey of Minneapolis and of J. N. McKindley to A. G. Ryan of Hallet & Carey Company of Duluth.

* * *

All grain carrying records from the Head of the Lakes were broken recently with the clearing of the steamer *Colonel James M. Schoonmaker* with a load of 514,000 bushels of rye for Buffalo delivery. The previous rye carrying record, made two years ago, was held by the steamer *William P. Snyder, Jr.*, at 474,000 bushels. The steamer *Wilpin* took out a load of 413,000 bushels of Great Northern Elevator S for Buffalo delivery on September 2. Vessel interests are looking forward to handling some big cargoes from this market between now and the close of navigation as competition is keen between some of the carriers.

* * *

Officials of the Duluth Board of Trade have issued statements expressing confidence that the grain boards will not experience any undue difficulties in operating under the new Capper-Tincher law when it goes into effect. H. F. Salyards, president of the Board, pointed out that futures trading for legitimate hedging, as well as speculative purposes will be legalized. Houses on the Duluth market, he said, are keeping records of their individual grain transactions and will be found ready to make any reports called for by the Secretary of Agriculture at Washington. He expressed the opinion that farmers and the farmers' bloc in the national house are beginning to realize something regarding what the lack of speculation entering into the grain trade means. That he thought to be one of the reason why coarse grains have dropped to their present low price levels as compared with wheat and flaxseed, in which the public is showing a fairly consistent degree of speculative interest.

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This will be the Northwest's record season in the handling of Durum wheat in the opinion of dealers here. In arriving at that conclusion they have taken cognizance of reports received from correspondents over the Northwest. Specialists in the Durum market here are being congratulated upon the success they are attaining in educating the eastern market up to it. Millers have been taking more Durum so far this season than in any other year in the history of the trade, indicating that the demand for it is expanding. It has also been a subject of comment that yields of Durum in districts where grown averaged up better than those of Spring wheat this season. On the whole operators here are sanguine that Durum will gradually work into greater prominence in consuming quarters in this country.

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A Duluth sales agency has been opened in the Board of Trade Building here by the Northwest Wheat Growers Association. It is in charge of A. A. Jewett. George C. Jewett of Portland, Ore., manager of that organization, who recently visited this market for the purpose of making arrangements to handle such of its pooled wheat as may be moved to the terminals here, announced that for the present it would deal through the regular houses and would not apply for membership on the Duluth Board of Trade, though that action might be taken later. He intimated that export trade would be done through established exporters and also through the Association's own connections. He asserted that probably 10,000,000 bushels of the from 20,000,000 to 25,000,000 bushels of wheat held in the Association's pool might be moved to the elevators here for storage this season. He intimated that elevator space to take care of any grain that might be shipped had been contracted for. He asserted that it is proposed to hold the wheat in store and to market it at favorable periods as export and domestic demand develops. He asserted that to enable the organization to carry through its marketing program a credit for $10,000,000 had been arranged for with the War Finance Corporation and that such loans as might be necessary to carry its grain would be obtained though loans from banks at Duluth, the Twin Cities and elsewhere.

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Elevator interests here are apprehensive that congestion will develop in storage facilities comparatively early this season unless export trade can be promoted in substantial volume during the fall months, and eastern domestic buyers anticipate their requirements to a greater extent. What is regarded as an especially bearish feature is that with much of the Winter wheat crop remaining to be marketed, the fall movement of the American and Canadian Spring wheat crops must be taken care of simultaneously. It has been noted that foreign buying of American wheat has been comparatively light so far, and from that some of the experts are assuming that the marketing of a considerable proportion of the new crop will require to be spread over a longer period, meaning additional strain upon the capacities of elevators at the terminal markets. The storage and handling situation is in the meantime being closely watched by Duluth operators. Advices received by grain men on this market during the last few days have been to the effect that interior elevators over North Dakota and Southern Minnesota are filling up, and that unless the eastern movement of grain increases materially, congestion will be a factor in the near future.

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With an aggregate of 2,410 cars of all grains on track here on the Tuesday following Labor Day, operators experienced their greatest day's activity since 1916. The amount of grain marketed aggregated more than 3,500,000 bushels. Receipts at Great Northern Elevator S alone for the day reached 913,384 bushels. They included 647,676 bushels of wheat; 259,734 bushels of rye and 5,974 bushels of flax.

* * *

C. C. Blair, secretary of the Globe Elevator Company, who recently returned from a visit to Winnipeg, asserted at it is estimated that 150,000,000 bushels of wheat will be shipped down to Fort William and Port Arthur elevators up to the close of navigation this fall. Heavy marketing will be forced in the Canadian West this season owing to bankers, wholesalers and manufacturers having started in to press for the payment of outstanding obligations. The capacities of all the elevators are expected to be taxed to take care of the movement and the extent of congestion that may develop at the ocean terminals depends upon how actively exporters take and ship out the grain, he asserted.

* * *

Present low prices for corn and oats are regarded with concern by grain men here. It is conceded that farmers cannot afford to market oats at their going prices which leave practically no leeway. In that connection, George E. Robson, one of the oldest operators on this market, mentioned that he had been only offered 15 cents a bushel above freight charges for oats raised on a farm owned by him in North Dakota. Against that he figured his cost of production, including seeding, harvesting and threshing, at 14 cents a bushel. In consequence of present conditions he is placing more cattle on his farm on the assumption that the cattle raising and dairying are more profitable than selling coarse grains at their current markets.

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The grain trade is in a healthy state and the season's marketing operations should result satisfactorily for the houses engaged in them, in the opinion of Horace Jackson of Jackson Bros. & Co., Chicago, who was a recent visitor on the Duluth market. He declined to make any predictions regarding the future course of wheat and coarse grain prices in view of the uncertainties created through demoralized exchange and other conditions in the European countries, and the difficulty in estimating the quantities of grain they are likely to import during the coming year. He pointed out that conservation and the use of substitutes might upset all calculations as to their imports of foodstuffs from America. He expressed himself as friendly to corn at its present price structure in view of the falling off in production brought about through dry conditions over some of the best corn territory which may lead to a further paring down in yields below the last Government estimate. Commenting upon the oats market, he pointed out that while prices are ruinously low for the producer, it must be remembered that large quantities of oats are being carried in the terminal elevators, and that the Canadian Northwest has an enormous crop that will be coming on the markets shortly.

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R. M. White of the White Grain Company has returned from an extended inspection trip by auto over the territory contiguous to this market. He found that extreme dry weather conditions had prevailed over a wide strip of country in central Minnesota. The second growth Clover had not come along at all down there and there was little pasturage for cattle, making it necessary for farmers and dairymen to feed much earlier than usual. As a consequence his house has been shipping out large quantities feeds over those districts. Mr. White looks forward to a greatly improved consumption of feeds in this territory during the next few months as a result of the greater attention being given to dairying and cattle raising.

NEW YORK

C. K. TRAFTON - - CORRESPONDENT

GRAIN traders and other members of the New York Produce Exchange were sorry to hear that the firm of E. F. Leland & Co. had ceased to exist as a separate organization, having become consolidated with Lamson Bros. & Co., of Chicago, owing to the retirement of E. F. Leland. This house was long and favorably known in the grain trade, having a private wire to the Chicago Board of Trade and elsewhere, previously as Ware & Leland, and was highly esteemed by members of the trade. For several years they were ably represented on 'Change by Walter G. Munn, who is one of the oldest grain brokers in the field and has the reputation of being extremely well-informed respecting grain statistics, etc. His many friends were glad to hear that Mr. Munn will continue in practically the same position with the consolidated firm.

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William Riemschneider, for many years a prominent member of the grain trade and now head of the exporting firm of Wm. Riemschneider & Co., returned to his post on the New York Produce Exchange recently after an absence of three months, spent mainly in a business trip on the Continent. He stated that the business outlook was by no means bright owing to the bad financial conditions.

* * *

C. Hansen, prominent in the barley and malt trades on the New York Produce Exchange, returned to the city recently with his wife after spending two-and-a-half months in Europe, partly business and partly pleasure. Most of this time he spent in Germany where they found living expenses, outside of the principal cities, were decidedly low. They stopped at one popular resort where the cost was only $1 per day each for a fine room with bath and excellent meals.

* * *

Among the prominent visitors recently in the grain and flour markets on the New York Produce Exchange was J. A. Walter of the J. A. Walter Milling Company of Buffalo. He stated that his firm had acquired the Banner Mills, which have a fine location on the Canal and the New York Central Railroad. These mills did a flourishing business for about 30 years; then the owners retired; and since then the mills have been idle for four years. While the building is not new, the machinery is and all it requires is a little overhauling. John McBride, the superintendent, formerly held the same position with the Thompson Milling Company at Lockport. The mill will grind Spring wheat exclusively, having an established trade in Spring wheat flour. Mr. Walter, who was, it will be remembered, general manager of the Hecker-Jones-Jewell Milling Company, covering a period of four years and for the six years preceding that had been

manager of other plants of the Standard Milling Company, expects that Buffalo will be one of the leading milling centers of the country within 25 years as several other large milling concerns are said to be contemplating building mills there. Mr. Walter also stated that his mill as well as others would ship via the canal.

* * *

John W. A. Davies has announced on the New York Produce Exchange that he has resigned from the flour brokerage firm of Spaulding & Kilthau, having gone into the brokerage business on his own account and opened an office in the Produce Exchange Building.

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William T. Burke, formerly vice-president and treasurer of Ernest Brewer Company, Inc., domestic and export dealers in flour and cereal products, has severed that connection, according to a notice on the Produce Exchange bulletin boards.

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The Board of Managers of the New York Produce Exchange has elected the following applicants to membership: Charles E. Burgess Jr., International Elevating Company, grain elevating; Dudley M. Irwin, grain merchant of Buffalo, N. Y.; L. W. Leisner of L. W. Leisner & Co., grain broker; E. T. Stanard of the Stanard-Tilton Milling Company, St. Louis, Mo.; John W. Seaman of Montgomery & Jenkins, commission merchants.

* * *

G. Walter Beavan, a member for many years of the New York Produce Exchange, spent a short time on the floor early this month, being on his way home after a month's stay at Asbury Park, the first real vacation he has had in many years.

Leslie F. Gates, former president of the Chicago Board of Trade and a member of the well known commission firm of Lamson Bros. & Co., was on 'Change for a short time, recently, having come here to see relatives off on a trip to Europe.

* * *

Alfred T. Martin, for many years a prominent member of the local grain trade, but now a member of the firm of Bartlett Frazier Co., commission merchants on the Chicago Board of Trade, who came east for his vacation, visited his many old friends on 'Change before returning to Chicago.

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Among the recent visitors on the New York Produce Exchange were the following prominent members of the Chicago Board of Trade: E. F. Rosenbaum and Wm. E. White of the J. Rosenbaum Grain Company; Otto Waitzmann, assistant secretary of Rosenbaum Bros., commission merchants; E. P. McKenna of McKenna & Dickey, grain merchants; Thomas M. Howell, grain operator.

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

THE transportation situation has been largely ruling the grain trade the past month, there having been plenty of stock available at all times, but movements through the elevators haven't been as good as anticipated, and there has been a great deal of delay in transit, due to embargoes at junction or terminal points. Some lines were embargoing everything for a time, but the situation is now rapidly righting itself, and things are in better shape than for some weeks past.

The Southern Railroad for a time was accepting practically no shipments. Trainmen's strikes occurred on the Louisville & Nashville, and stopped all shipments on some divisions for a few days. The Illinois Central was accepting practically no shipments over the Louisville division, in order to move coal for a time. The C. & O., Big Four and other lines had some trouble, but the lines moving South had the most. The Monon, Pennsylvania and B. & O. lines rendered very fair service at all times. The L. & N. reports more than 80 per cent of a normal shop force at work on the system and that strikers are coming back. The K. & I. Terminal R.R., at Louisville, reports that it will no longer feed or board its new shop force and is weeding out, as it now has plenty of men. As a whole the rail strike situation appears clarified.

* * *

The Kentucky Public Elevator Company reports that it has about 550,000 bushels of grain on store, of which 400,000, mostly wheat, is on long storage. The balance is corn and oats with a little rye. Daily handlings should be about 30 cars, but are down to 10 or 12 cars a day just now. However, since September 1, handling has been considerably better.

* * *

Corn prices are firmer and all grades are now breaking on a steady and close differential. There is also no difference between White, Mixed and Yellow, although White is in better demand. Local handlers are quoting No. 3 grades, any color, at 67½ cents; No. 4 grade, 66½ cents; and No. 5 grade, at 65½ cents. Oats are quoted at 39 and 40 cents a bushel for No. 3, there being practically no No. 1. Rye is quoted at 85 cents for Rosen in car lots, without sacks. Seedsmen are asking $1 a bushel in sacks.

Feeds are in fair demand due to the fact that the country is burned up and pasturage not so good. Bran in car lots, cotton, is quoted at $22 a ton; mixed feed, $34; middlings, $23.50; hominy feed, $29; and cracked corn, $31.

Grain prices are up a little, but hay prices are continuing low as a whole. No. 1 Timothy, is $18.50 and No. 2, $17.50. Light Clover Mixed, No. 1, $17.50; Clover Mixed, No. 1, $16; No. 2, $14; Clover, No. 1, $15 and No. 2, $13; wheat and oat straw, $11; rye straw, $13.

* * *

Millers are rather bullish concerning the future of wheat, and feel that the option prices couldn't properly take care of insurance, storage, carrying and handling costs. As a result millers have been buying and holding wheat, figuring to save materially over allowing it to get away from the community, and having to pay a higher price and freight back. It is claimed that country mills and elevators have a good deal of wheat in hand.

* * *

Elevators and mills a month ago could hardly get coal at any price, the market going as high as $11.50 a ton at the mine. Now the coal men are soliciting business freely, at from $3.75 to $5 a ton at the mine. No further fuel trouble of a drastic nature is anticipated, although there may be some shortage this winter when domestic demand is heavy, as consumers have but little fuel in stock.

* * *

John Schneider, who has been operating the grain and feed stores of A. Schneider & Son, has sold his holdings, the larger store at Twenty-sixth and Market Streets being sold to Fred Keifer, and the store at 332 East Jefferson Street to Wm. C. Vette. The latter was formerly with the George Miller, Jr., Coal Company. Mr. Keifer was formerly shipping clerk for Mr. Schneider, later entered business for himself at Twenty-sixth Street and Slevin Avenue, and after buying the Schneider store in the same district, closed his own store.

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R. D. Reidling who operates a hay and grain house on Jefferson Street, has added a couple of suburban stores in the last few months, having taken over the old Luesing store at Fourth and Central Avenue, at the entrance of the Churchill Downs race track, and also the old house formerly operated by Miller Brothers, at Eighteenth and Magnolia Avenue. This latter store was leased for a time by the Kentucky Feed & Grain Company, while it was building a new elevator.

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A number of companies which operate branch stores near the local race tracks, or who are located in that district, have been doing a good business of late, as there have been many horses quartered there all summer, and especially during the present fall race meeting, during which stable room has been at a premium.

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The Ballard & Ballard Company, is featuring its poultry feeds, putting out baby chick, scratch, buttermilk and other special poultry feeds.

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The Ritter-Henning Company, according to E. M. Ritter, president, furnished hay, grain and feed for four circuses last season, and two so far this year. In this connection he commented on the fact that the hippopotamus is the only water animal that he knows of that eats hay, and he is wondering whether the big rascal was originally a water or a land critter. The chances are that he was a combination at the start. A bale and a half of hay is about the daily consumption of the hippo according to Mr. Henning. For Robinson Brothers' one day stand at Louisville five tons of best hay, three tons of straw, 250 bushels of oats, and one ton of bran was required.

* * *

Fred J. Seng, of New Albany, Ind., has been experimenting with rice growing in the bottoms of Muddy Creek, 12 miles from the city, and reports that he expects to cut a fair crop about the middle of September, and is investigating conditions in the southern Indiana territory, as he believes it is possible to produce rice profitably.

* * *

A report from Lexington, Ky., last month was that due to the rail strike and inability to move hay, farmers were forced to store hay in tobacco barns in Lexington, when haulings glutted the market and the price dropped from $18 to $12 a ton. The Farmers' Union started the movement, and secured the use of the Independent Tobacco Warehouse Company to take care of the situation. An insurance rate of 20 cents a ton was secured to December 1, when hay has to get out to make room for the Burley tobacco crop. It is said that about 13,000 tons will go into the warehouses for future sale when the market is more satisfactory, and rail movements are better.

* * *

Lieut. Gov. S. Thruston Ballard, president of the Ballard & Ballard Company, is clearly not in politics for money, as he donates his annual salary as an officer of the state, to Berea College, at Berea, Ky., to which he has frequently made substantial gifts. Just recently he donated a fine radio receiving set to the Scaffold Cane School, three miles from the college, which represents a preparatory branch.

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

THE grain trade of Milwaukee, much like the grain business at other leading markets, appears to be badly hampered by the lack of cars, due to the shopmen's strike. The reports compiled by Secretary Harry A. Plumb, secretary of the Chamber of Commerce at Milwaukee, indicate that total receipts of grain at Milwaukee for the month of August were between 4,000,000 and 5,000,000 bushels as compared with a total between 13,000,000 and 14,000,000 bushels for the same month of last year. Mr. Plumb estimates further that the present aggregate of receipts is only about 25 per cent of what they would be if there were no car shortage such as created by the striking shop men.

Grain men assert further that if there were a free movement of grain, if cars could be supplied in abundance and the trains moved out readily, that grain prices would be likely to decline still more than they have gone down, at least temporarily, until the bulk of rush fall marketing is out of the way.

Still more light is thrown on the scarcity of grain shipments by the record for the last week in August and the first days of September, the week's record showing receipts of only 640 car loads as against 651 cars for the week before, 1,555 car loads for the corresponding week a year ago and 1,107 cars for the same week two years ago. Of the 640 car loads of grain received, according to the latest weekly record, 133 cars were barley, 187 cars were corn, 192 cars were oats, 89 cars were wheat, 37 cars were rye and two were cars of flax.

Grain men generally deplore this striking restriction of the trade just when the grain business and grain movement should be at its maximum, but they console their present losses in the fact that all the other grain markets of the Middle West are "in the same boat" so that when the car movement does improve, the grain will come here in much greater volume and the lack of shipments will ultimately be made up. The great fear is that the congestion of coal and other freight on the railroads and the growing tide of business generally would prevent the movement of grain cars if they could be obtained and loaded.

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Shipments of grain record the small receipts also, it being shown by the latest weekly record at hand that total shipments were 601,000 bushels approximately as compared with 562,000 bushels for the preceding week and 2,057,000 bushels for the same week a year ago. This indicates that shipments of grain are only about one fourth to one third of the volume maintained a year ago for the same season.

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Weather reports coming to the Milwaukee Chamber of Commerce and to local grain men prove that the hot, dry weather of the last week in August and the first week in September has damaged corn materially in this district, and especially in Illinois and Indiana. Corn is also said to be maturing very slowly in Michigan and that it will not be out of the reach of frost for several weeks. Wisconsin temperatures have been moderate to very high recently and there has been very little rain, in fact showers are badly needed in all parts of the state despite some rains that came recently in the eastern and northern sections of the state. The southern and eastern portions of Wisconsin are still most in need of rains. The dry weather in Wisconsin, however, has been favorable for hurried ripening of corn. Threshing is well advanced in many portions of the state and plowing and seeding of the fall sown grains have been delayed by the dry, hard ground. Pastures and meadows have been drying up in many counties, the reports show.

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Grain in store at Milwaukee at the opening of the month of September was 38,000 bushels of wheat in round numbers, 198,000 bushels of corn, 643,000 bushels of oats, 155,000 bushels of barley and 19,000 bushels of rye. The supplies on demand are light except in the case of oats. Shipments of grain are going out promptly for all receipts that are not needed for local consumption.

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The elevators which have been declared regular at Milwaukee for the year ending August 1, 1923, are Rialto A, with 200,000 bushels capacity and Chicago, Milwaukee & St. Paul, Elevator E with a capacity of 300,000 bushels.

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The recent prices on No. 3 barley have ranged from 55 to 59 cents as compared with ruling prices a year ago of 68 to 77 cents for the same grade. The decline from last year is approximately 18 cents a bushel, or between 20 and 25 per cent. No. 3 White

oats has been selling recently from 33 to 35 cents a bushel as compared with a price of 29 to 37 cents for the corresponding time a year ago. The decline in oats is only a little more than 5 per cent for this grade. No. 2 rye has been quoted recently around 68 cents, as compared with a ruling price for the same date a year ago of $1.12 to $1.12½ a bushel. The decline is just a shade less than 40 per cent in this grain. No. 2 Yellow corn has been moving recently at 61 to 62 cents as compared with a range of 60 to 61 cents for the corresponding time a year ago. The price is actually a cent higher than last year according to this comparison.

The No. 1 Northern wheat has been quoted recently at $1.14 to $1.21 as compared with $1.34 to $1.39 for the corresponding date a year ago. The decline is 12 to 13 per cent from last year's scale.

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The September rate of interest on advances has been reduced by the Finance Committee of the Chamber of Commerce from 6½ to 6 per cent, which represents gradual easing in the money market.

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The latest weekly report from the flour mills of Milwaukee shows that production dropped to 3,500 barrels of wheat flour compared with 10,000 barrels in the previous week and 11,050 barrels for the same week a year ago. The output of rye flour was 1,000 barrels as compared with 1,200 barrels last week and 2,700 barrels for the corresponding week a year ago. The grinding was only one-third of the volume for the same date of 1921.

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Milwaukee stocks of flour at the opening of the week were 88,945 barrels, compared with 39,000 barrels in round numbers a month ago and 18,000 barrels for the corresponding date a year ago. The stocks of flour are about four times the average of the last three or four years and the supply is the largest in many years, even exceeding the high level established for September in 1916.

* * *

One of the striking points in connection with the present grain trade at the Milwaukee Chamber of Commerce is the number of out-of-order cars which is steadily increasing. The latest monthly report shows no less than 31 per cent of all inbound cars leaking as compared with 21 per cent of bad order cars for the previous month, 13 per cent of leaking cars in June and 12 per cent of all incoming cars leaking in May, 1922.

The very poor condition of rolling stock, like the highly restricted grain receipts at present, is blamed on the strike of the shop men. From May to August the number of leaking cars has almost tripled. Every shipper to the Milwaukee market has been cautioned to use extreme care in selecting cars in which grain is sent out, in order to hold this loss from leaking cars down to a minimum as long as the present strike continues.

* * *

One of the new activities of the Milwaukee Chamber of Commerce was that of putting on an exhibit at the Wisconsin State fair at Milwaukee, illustrating by charts, figures and demonstrations just how grain is handled in the modern trade. The booth of the Chamber of Commerce showing all phases of grain trading so that any farmer or dealer could understand it, was in the Department of Agriculture tent. When the grain business and grain handling is better understood, it will be much less maligned, is the attitude of the officials of the Milwaukee Chamber, who believe the public should be instructed along this line.

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One of the most interesting incidents of Milwaukee's grain shipping season for 1922 was the visit of the tramp Norwegian steamer *Modena* to Milwaukee to get a cargo of grain. The *Modena* is an 1,800 ton ship; it steamed into the local harbor in the morning and steamed out again the same night, loaded with grain for Montreal. The valiant little boat took on a cargo of 21,135 bushels of wheat and 33,500 bushels of corn, a total cargo of a little more than 50,000 bushels and immediately headed for Montreal.

H. Olafsen, the captain of the ship, told many interesting tales of the hazards and dangers which his ship has encountered. Capt. Olafsen said he had visited practically every country in the world—from Orient to Occident, from the Arctic to the Antarctic seas. He has not been home for many months. During the world war the vessel had many narrow escapes in its trips from France to England over mine strewed waters. While one ship after another was lost, the *Modena* with its gallant little crew of Norsmen escaped untouched. One of its recent trips was to the West Indies.

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One of the most exhaustive and thorough reports on the annual barley crop is that issued by the E. P. Bacon Company. This canvass showed that considering the returns from 400 replies on barley crop conditions, there will be an increased production, larger yields per acre, and most of the grain will be of good quality, while some will be unusually good in favored localities. The weather during the harvest was also found to be favorable for securing the crop with but very little damage.

The Wisconsin report showed an increased output due to larger yield. The acreage was about the same, quality was good with the berry ranging from medium to plump and very little unsoundness was shown. Color is fair although none report grain badly discolored and some was of bright color. The acreage changes are from 50 per cent decrease to 50 per cent increase, but the larger number are unchanged. The difference in area from last year is less than 1 per cent. The yield per acre in Wisconsin is given at 18 to 50 bushels with the average around 31½ bushels an acre, or about 10 bushels an acre more than last year and 1 bushel less than the average two years ago.

The Minnesota report also showed larger production due to better yields. The acreage was about the same in that state, with a range from 50 per cent decrease to a 50 per cent increase, but the larger number of reports were unchanged. The quality was good, ranging from plump to medium, with very little grain of light weight. There was some damage by hot, dry weather, but there was no unsoundness of consequence. Color was fair with some good color and some discolored, but none was badly off color. The yield estimates ranged from 15 to 45 bushels per acre with an average of about 27½ bushels, or 5½ bushels more than last year and almost 2 bushels more than the average yield two years ago.

The Iowa reports also indicated greater production and larger yields per acre. The acreage was about the same with changes ranging from 50 per cent decrease to 50 per cent more, but more reports are of an increase and one third of them say no change in area. The average is less than 1 per cent difference in area. Quality in Iowa ranges from plump to medium, mostly medium, with very little light weight barley. There was some damage by dry, hot weather and some by wet weather, but there was no unsoundness of consequence. Color is mostly discolored but little badly so and some is good color. The yield per acre ranges from 12 to 45 bushels and the average is about 30 bushels per acre, or 5½ bushels more than 1921 and about 2 bushels more than the yields in 1920.

South Dakota also reported a gain in production and better yields although acreage is slightly less. Again the acreage ranged from 50 per cent decrease to 50 per cent increase, but more than a third were unchanged. The average was about 1¾ per cent decrease. The quality ranged from medium to plump, mostly plump, and the quality is uniformly high although there were scattering reports of light weight. There was some damage by hot and dry weather and some by wet weather, but there was no unsoundness of any consequence. Color was variable with mostly good color, although a larger number reported discoloration and some badly so. The yields were given at 8 to 40 bushels, but there were only a few yields near these extremes and the average was about 24 bushels an acre, or almost 4 bushels better than the yield last year and about half a bushel less than the crop two years ago.

Wisconsin thus leads the four big barley states with an average yield according to this survey over 31 bushels an acre, Iowa comes second with a harvest of about 30 bushels an acre, Minnesota ranks third with better than 27 bushels average yield and South Dakota ranks fourth and last with yield in excess of 24 bushels an acre.

* * *

The grain cargo shipments from Milwaukee as compiled to date are a little in excess of 14,000,000 bushels as compared with more than 16,000,000 bushels shipped out by water for the same period of last year. Last year made a high record of water shipments and it was not expected by grain men that the swift pace of 1921 could be maintained this year. Shipments this season to Canadian ports have been slightly over 7,700,000 bushels, while cargoes destined for American ports were in excess of 6,500,000 bushels. Last year a larger portion of shipments went to the Canadian ports.

Out of the 14,000,000 odd bushels shipped out by water this year, no less than 10,000,000 bushels or about 70 per cent of the total was corn, while wheat made up 291,000 bushels aproximately, oats shipments were in excess of 2,856,000 bushels, barley shipments were over 492,000 bushels, rye shipments were 449,000 bushels.

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The oats crop of Wisconsin has been estimated in excess of 103,000,000 bushels, as compared with the 97,000,000 bushels forecast for the previous month and the 63,000,00 bushels produced in 1921. However, the five-year average was 95,000,000 bushels, so that the actual yield is just a little better than average although it is almost 50 per cent better than last year. There was some red leaf rust but this came so late that it did not do much damage to the crop. The conditions at the time of filling and ripening of the crop were reported to be ideal, so that a very high grade quality of grain is expected in trade channels.

The Wisconsin barley crop is reported at better than 14,500,000 bushels as compared with an estimate of 13,300,000 bushels approximately in the previous month and actual production last year a little in excess of 10,000,000 bushels.

The estimates of rye yield in Wisconsin show an average of about 15½ bushels as compared with 14.5 bushels last year and a 10-year average of more than 17 bushels an acre. Production is just a shade under 7,000,000 bushels as compared with about 4,700,000 bushels last year and a five-year average in excess of 5,600,000 bushels. The total yield of 1922 is therefore considerably above the usual average.

The wheat crop of Wisconsin is estimated in excess of 3,400,000 bushels which is about the same as the previous month and compares with a crop a year ago of 2,700,000 bushels. The five-year average however is over 6,300,000 bushels so that the 1922 crop is only about one half the usual average. This is due to the stimulated acreage during the war and the gradual decline in interest in wheat since the war.

The corn crop of Wisconsin is estimated at 86,000,000 bushels in round numbers compared with 88,000,000 bushels in the previous month, a crop last year in excess of 97,000,000 bushels and a five-year average only a little more than 69,000,000 bushels. The yield of corn will be under the huge crop of last year, but it will be about 25 per cent better than the average over a period of years.

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The Parry Products Company announces that it has perfected its organization and that the operation of its plant has begun. The company will specialize in high grade feeds under the special brand name of "Shur Gain." Officers of the company are: President, John Goetz; vice president, Paul Thomas; general manager, Thomas W. Parry. The new plant of the company is located at 3601 to 3611 National Avenue.

* * *

One of the many desirable activities of the Milwaukee Chamber of Commerce which is designed to aid the grain trade, is the offering of five silver cups annually at the Grain Show of the Wisconsin Agricultural Experiment Association. The trophies go to the best exhibit of wheat, oats, corn, barley and rye.

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The Blanchard Grain Company, engaged in the commission business in grain in Milwaukee for a number of years, has been discontinued and Mr. Blanchard goes to Marshall, Minn., as the representative of the Froedtert Grain & Malting Company of Milwaukee, which is one of the world's largest malting companies after the recent consolidation and purchase of plants.

BUFFALO

ELMER M. HILL CORRESPONDENT

INDUSTRIAL development of the so-called Tifft Farm along the outer harbor at Buffalo which provides for the erection of a series of big grain elevators has been proposed by the Lehigh Valley Railroad Company. Plans for the development of some 230 acres of waterfront property in that section have been outlined to officers and directors of the Chamber of Commerce and the Buffalo Corn Exchange by John Duffy, assistant to the president of the Lehigh Valley.

Under the proposed plan of the Lehigh Valley, piers and wharves would be built from the shore line into the outer harbor with rail connections from the Tifft Farm yards of the Lehigh Valley. The location of big grain elevators and warehouses at this point would eliminate the necessity of going into the inner harbor at Buffalo and would do away entirely with the use of tugs for towing lake grain carriers and other ships.

While the plans are in a formative stage, engineers for the Lehigh Valley have prepared sketches showing how the property would look if the present proposals are carried out. A series of big terminal grain elevators would be constructed either by the railroad or private individuals who could acquire the site.

* * *

The canal barge steamer *Westchester* towing two barges with a total cargo of 46,000 bushels of grain arrived at the Gowanus Bay terminal of the New York State Barge Canal early this month, the pioneer of a new allwater service from Toledo, Ohio to New York. The *Westchester* was routed via Lake Erie, Niagara River, State Barge Canal to the Hudson River. Other steam barges which followed the *Westchester* over the same route were the *Rensselaer* and *Putnam*, each of which towed two barges. The New York Canal & Great Lakes Corporation plans the establishment of a regular water service between Toledo and New York.

* * *

The steamer *Modena* was in port last month loading grain for Christiania, Norway. The ship has taken a cargo from Norway to Norfolk, Va., and then was ordered to Buffalo to load grain for her home port. The ship made the trip via the Welland Canal and the St. Lawrence River.

* * *

The Standard Milling Company, of Buffalo, also known as the Hecker-Jones-Jewell Milling Company, which plans the construction of an enormous concrete grain elevator and flour mill in the outer harbor, is to erect a modern reinforced concrete warehouse for its export trade at Jersey City, N. J., according to announcement made here. It will be six stories in height, 90 feet wide

and 400 feet long and will have deep water facilities for loading ocean going steamships and tracks for loading and unloading nine cars at one time. It is planned to use the top floor as a lunch room for employes and equipment to be installed will include a laboratory, bleaching machinery, house for high pressure sprinkler and gravity tanks. Adjoining one end of the structure will be a wharf 120 feet long with a fireproof garage. There will be eight automatic elevators, two four-ton platform elevators and one electric elevator for employes. The A. L. Baxter Engineering Company of Buffalo has drawn the plans and specifications for the structure.

* * *

The state power yacht *Inspector* recently brought to Buffalo from New York a large party of grain and elevator men and transportation officials. The trip was made to show the possibilities of the New York state waterway from the terminal elevators at Buffalo to the Atlantic Seaboard. Among those in the party were E. R. Coker, wheat buyer for the Hecker-Jones-Jewell Milling Company, New York; O. A. Hodgens of Munn & Jenkins, Inc., New York; Stewart H. Brown, traffic manager of the Union Bag & Paper Company, New York; E. G. Warfield, vice president of the New York Canal & Great Lakes Corporation, New York; P. M. Ripley, general traffic manager of the American Sugar Refining Company and others.

* * *

The corn borer is beginning to make his appearance in western New York with the result that Federal agents in co-operation with state inspectors are checking up fields in many sections of the western New York in an effort to check its spread. This is the first time in many years that the corn borer has been found in Niagara County.

* * *

The three large linseed mills in Buffalo, the Spencer Kellogg & Sons Company, The American Linseed Company, and Mann Bros., have resumed operations on an extensive scale after a period of idleness. The linseed mills are grinding large amounts of Argentine flax which is being received in Buffalo via the New York State Barge Canal.

* * *

Donald Benedict has resigned as assistant sales manager of the Clover Leaf Milling Company, to become sales manager of the Clyde-Ranco Milling Company, of Clyde, N. Y. Mr. Benedict is well known in grain and feed circles in Buffalo.

* * *

Fire late last month destroyed one leg and the scale room of the American Elevator & Warehouse Company's grain elevator at the foot of Childs Street. The leg which was burned was 140 feet high and was of wood and corrugated iron construction. The cause of the fire is not known. The damage will exceed $25,000, it was reported. There is insurance.

* * *

The Washburn-Crosby Company, South Michigan Avenue and the Blackwell Ship Canal, has filed plans for the immediate construction of a four-story reinforced concrete warehouse to cost approximately $200,000. The structure will be 284 feet long and 60 feet wide.

* * *

When the big steamer *Schoonmaker* arrived in Buffalo early in September she had on board 514,000 bushels of rye which is equal to 480,000 bushels of wheat and was the largest cargo of grain ever consigned to the port of Buffalo. The largest wheat cargo ever carried down the lakes to terminal elevators in the harbor was brought in on the steamer *W. Grant Morden* and totalled 476,000 bushels.

* * *

John DeBourg for several years employed at the Eastern Concrete Elevator on the Buffalo River was crushed to death last month when his body became wedged between a grain conveyor and the lower end of a grain spout. He was 52 years old and was well-known in grain elevator circles along the waterfront. DeBourg had been dead several hours before his body was found.

* * *

The Export Grain Corporation has leased the Pennsylvania Railroad Company's new grain elevator at Erie, Pa., and will operate the structure for a term of years. The elevator was built several years ago by the Folwell Ahlskog Company, of Chicago and has a capacity of 1,250,000 bushels. It is of re-inforced concrete throughout and has a 25,000 bushel marine tower.

* * *

Members of the elevator, grain and feed trade in Buffalo are taking an active part in the winter plans of the Buffalo Association of Credit Men. The state convention of the credit men will be held in Buffalo in October and efforts are being made to bring the national convention of the organization to Buffalo next year. Emil Wohler of the Harvey Seed Company, has been designated chairman of the Adjustment, Investigation and Prosecution Committee of the Buffalo association and H. B. Kelsey of the Washburn-Crosby Milling Company, is a member of this committee. John Bulger of the U. S. Rubber Company, and L. E. Hilbrandt of the B. F. Goodrich Rubber Company, are members of the Committee on Bankruptcy; H. B. Kelsey, Washburn-Crosby Company, Credit Interchange Committee; John Bulger of the U. S. Rubber Company, and W. J. Seligman of the George Urban Milling Company, membership Committee; Frank A. Worth of Spencer Kellogg & Sons Company, grain elevators, chairman of the Mercantile Agencies Committee, Publicity Committee and vice chairman of the Business Meetings Committee; W. J. Seligman of the George Urban Milling Company, vice chairman of the Millers and Grain Men's Trade Group Committee.

* * *

Many upstate elevator and grain men and barge canal line owners attended the formal opening of the new state-owned grain elevator at Gowanus Bay, New York. The state superintendent of public works was congratulated on the rapidity of the completion of the structure. The contract was executed by the state May 3, 1921 and in less than 16 months the big structure was ready for use by the state. Commenting on the elevator, Charles L. Cadle, state superintendent of public works, said:

"The great need of this state-owned and operated elevator is made apparent when it is remembered how, heretofore, it was necessary frequently, upon arrival in New York, to leave a shipment of grain in the barges for lack of elevator space. As most of the grain is for export there was a long waste of time before it could be loaded aboard on outgoing ocean steamship. Demurrage charges would mount up, while boats were held out of commission for a considerable length of time. All these delays will be eliminated by the use of the new state elevator of 2,00,000 bushels capacity, so that more grain can be brought through from the West at a reduced cost. Already thousands of bushels of wheat have been raised to the bins of the elevator from some of the big canal carriers."

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Roy B. Mulkie was elected president of the Mutual Millers & Feed Dealers Association of Western New York and Pennsylvania at the recent annual convention

ROY B. MULKIE
President Mutual Millers and Feed Dealers Association

in Jamestown, N. Y. He is associated with the Union Coal & Supply Company, wholesale flour, feed and grain at Union City, Pa.

* * *

Gould & Dixon, Inc., has been incorporated under the laws of the State of New York with an authorized capitalization of $35,000 to engage in the grain, hay and straw business in Buffalo. The firm will act as brokers and agents. The directors are Jay Gould, 365 Crescent Avenue, Arthur A. Dixon, 897 Lafayette Avenue and Hubert H. Hunter, 1602 Delaware Avenue. The active heads of the firm are Messrs. Gould and Dixon.

* * *

Nisbet Grammer of the Eastern Grain, Mill & Elevator Corporation, owners and operators of the Concrete-Central terminal elevators, the largest grain storage structures in the Buffalo Harbor, is a member of the Executive Committee of the Buffalo Annual International Power Boat regatta which is scheduled to be held on the Niagara River September 14-16. A. C. Heinold, well-known grain merchant, also is a member of the committee which was appointed by Commodore Humphrey Birge of the Buffalo Launch Club. Many members of the Buffalo Corn Exchange have become patrons of the races which bring to Buffalo each year the fastest power boats in the United States and Canada.

* * *

The little ocean-going steamer *Modena* which has been engaged in trading between Norway and North American points since the close of the war, is now engaged in the grain carrying trade between Buffalo and Montreal. The little ship arrived at the Mutual Elevator early this month and took on a cargo of 56,000 bushels of wheat consigned to Montreal. Her skipper, Captain Hans Olafsen of Norway, a deep, sea navigator, says that the ship will be engaged in the Buffalo-Montreal grain trade for the rest of the season. During the war the *Modena* traded between England, France and Russia and along the Mediterranean. The ship is owned by Iver A. Christensen of Christiania, Norway.

* * *

The threatened coal shortage this winter will have little effect upon grain elevators along the waterfront, according to a survey made by the Fuel Committee of the Chamber of Commerce. All of the big terminal elevators and many of the smaller structures are operated throughout by Niagara Falls electric power and are independent of a fuel supply. Some lake freight lines have been somewhat affected but grain carriers are operating on a hand-to-mouth basis and are wondering where their next coal supply is coming from.

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Announcement is made by the Archer-Daniels Linseed Company, of Buffalo that a contract has been awarded to the Fegles Construction Company for the erection of a 700,000-bushel elevator, concrete wharf and traveling marine tower at Fort William, Ont.

TOLEDO

C. O. BARNTHOUSE - CORRESPONDENT

TOLEDO shippers interested in trans-continental shipping held a meeting at the Secor Hotel on September 7 with railroad representatives to consider the recent tariff which gives eastern shipping bases practically the same through rates, via water and rail, to western common points as enjoyed by shippers in Toledo territory, and which amounts to a discrimination against Toledo shippers to the extent of the New York-Toledo proportion of through rates. L. G. Macomber, traffic commissioner for the Toledo Produce Exchange, had charge of the matter for local interests. J. P. Haynes, traffic director of the Chicago Association of Commerce, attended the meeting. A hearing on the subject before the Interstate Commerce Commission is now being held in Chicago. Ohio shipping interests are making a determined stand to have present rates maintained.

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L. G. Macomber, traffic commissioner of the Toledo Produce Exchange, was the speaker at a dinner given recently by the Central Ohio Manufacturers' Association at the Westbrook Country Club, Mansfield, Ohio. His topic was "Traffic problems."

* * *

President Keilholtz of the Toledo Produce Exchange extended an invitation to the Michigan Grain & Hay Dealers Association at their recent convention, to hold their next meeting in Toledo.

* * *

The Toledo Transportation Club marked the end of the vacation season by holding a meeting September 2 at which a number of constitutional amendments and other important business matters were given consideration.

* * *

Jas. A. Hall, manager of the Weber Flour Mills Corporation offices in Toledo, announces the following realignments of territory: A. B. Hewson will have jurisdiction over the western third of Ohio in addition to his Indiana territory, with Wm. A. Gersonde, formerly of Michigan territory as assistant in Indiana. Geo. N. Collins will have jurisdiction over the eastern two thirds of Ohio in addition to his West Virginia territory with G. A. Stewart as assistant. The company expects to add three additional salesmen to their present force at once. Their headquarters and milling plants are located in Salina, Kan.

* * *

Howard Jackson, of Jackson Bros. & Co., Chicago stopped off recently on his way from Detroit to Chicago and spent a few hours with his many Toledo friends.

* * *

John Wickenhiser, Harry Devore and Robert Burge have returned from their summer vacations at Long Lake, Mich.

* * *

Ralph Williams, local manager for Lamson Bros. & Co. of Chicago took a vacation trip to Murdo, S. D., via motor recently, returning September 4. Mrs. Williams accompanied him. He reported an excellent outlook for corn along the route traversed.

* * *

Louis Schuster, accompanied by Mrs. Schuster, is taking a vacation trip to Chicago, Milwaukee and other western cities, mingling business with pleasure. They will be absent about two weeks.

* * *

Grain receipts show a distinct falling off recently, but compare fairly well with last year at this time. The oats crop in territory contiguous to Toledo was a failure this season, yielding from 5 to 30 bushels per acre of very light weight grain. One prominent Toledo cash house stated a few days ago that they had not received a single acceptance on their oats bids, whereas at the corresponding date a year ago they had bought upwards of a million bushels on their bids. Corn is maturing in fine shape but the total yield has been greatly reduced by the dry hot weather

in many spots over this territory. Unless good soaking rains are received soon it will result in a reduced acreage of wheat seeded this fall. The Clover seed crop is reported to be larger than usual, but the late seed has been damaged also by the recent drouth. Very little complaint is heard of the ravages of the European corn borer which did so much damage in this section last year. All the northern tier of Ohio counties which border upon Lake Erie are under strict quarantine by the state authorities and no corn can be transported out of the counties which contained the pest last year.

* * *

Fred Wickenhiser and wife motored to points in Pennsylvania and New York last week to visit relatives.

* * *

The Raymond P. Lipe Company for the second time within a twelve-month suffered the loss of their large hay warehouse at La Grange and Detroit Avenues, Toledo last Thursday night. The warehouse ignited from a burning box car which stood on an adjacent siding. Loss total, nearly covered by insurance.

* * *

The Pittsburgh Steamship Company is already sending their large fleet of lake steamships to Toledo for winter storage. They have a fleet of about 50 of the largest vessels plying the lakes and about half of them will tie up here, as they did last winter. This has been another light shipping season on the lakes, although considerable coal is finding its way through this port since the settlement of the strike. The rail strike is still interfering to some extent with normal operations, but has about run its course, and whether settled or not will soon be a thing of the past.

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E. L. Diller, of Diller Bros., proprietors of the Bluffton (Ohio) Mills called on friends here.

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A. W. Erickson, of Kansas City, Mo., representing the Federal Grain Company, called on the Toledo millers a couple days this week. The following were also noticed among recent callers: H. L. Goemann, Mansfield; A. A. Cunningham, Tiffin; Frank McManus, Findlay; D. J. Lloyd, Waterville; L. J. Ducatt, Stony Ridge; Rush Croninger, Grand Rapids; G. L. Kraft and A. T. Ward, Fostoria; O. E. Richardson, Celina; C. A. Hiegel, Leipsic; A. Fetterman, Haskins; and Eli Short, Stryker.

PHILADELPHIA

T. A. SIEBER - CORRESPONDENT

ACCORDING to the monthly report of the statistician of the Commercial Exchange, the stock of grain in public warehouses in Philadelphia on September 1, was 1,180,422 bushels wheat, 24,222 bushels corn, and 110,061 bushels oats, compared with 1,152,447 bushels wheat, 319,965 bushels corn, and 17,277 bushels oats on August 1, and 993,966 bushels of wheat, 583,210 bushels corn and 242,160 bushels oats on September 1, 1921. Receipts of grain at Philadelphia during the month of August, 1922, were: 5,443,692 bushels wheat, 476,295 bushels corn, 344,563 bushels oats, 162,209 bushels rye and 4,237 bushels barley. Exports from this port during the month of August were: 4,250,265 bushels wheat, 652,160 bushels corn, 29,944 bushels oats and 268,204 bushels rye.

* * *

New memberships in the Commercial Exchange have been petitioned for during the past month by Geyelin & Co., and John L. Gross.

* * *

The flour and feed business of William Geiger at West Conshohocken, Pa., has been sold to Arthur Ramsey.

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The grain and feed warehouse at Westville, N. J., which was conducted by Charles C. Dempsey for the past 31 years has been sold to B. Goodman & Sons of Bayonne, N. J.

* * *

The grain and feed business of S. Clouse & Son at Pottstown, Pa., has been purchased by Irving S. Shaner of Sanatoga, Pa., and the business will hereafter be conducted under the name of I. S. Shaner & Son.

* * *

Mrs. Horace B. Kratz, 53 years old, wife of Horace B. Kratz, grain, flour and feed merchant and for many years a member of the Commercial Exchange, died suddenly at her home at Schwenksville, Pa., about two weeks ago of heart failure.

* * *

A mill for the manufacture of poultry is being erected at Fort Washington, Pa., by Fretz Bros. of Willow Grove, Pa.

* * *

One of the largest amounts paid on an insurance policy during the year 1921, was that on the life of Benjamin F. Eby, grain and feed merchant of Lancaster, Pa., amounting to $699,842, according to tables published in the *Insurance Press* of New York, N. Y. Another amount of $18,236 mentioned in the report was paid to the heirs of Hahlon R. Swartley, grain merchant of North Wales, Pa. Both Mr. Eby and Mr. Swartley were members of the Commercial Exchange for many years.

* * *

William Wall has taken over the feed business and property of R. G. Allison at Ambridge, Pa., who will enlarge the business to include, flour, dairy and poultry products.

* * *

David R. Worman, aged 85 years, is lying ill at his home in Frenchtown, N. J. He is one of the oldest millers in that section and for many years has traded on the Bourse floor.

* * *

C. C. Snyder & Son, Irving B. Hudson Sales Company, International Milling Company, J. J. Davidson, Jr., and Jones & Wentz have been elected to membership in the Commercial Exchange.

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The grain elevator and warehouse at Quaker Stations, Pa., has been sold by Purdy Bros. to the Ohio Valley Feed Company of Coraopolis, Pa., and the business will hereafter be conducted under the name of Sewickley Valley Supply Company.

* * *

The first lot of new oats was received by A. A. Stites & Son on August 21 in the Philadelphia market. It consisted of two cars, comprising 4,000 bushels, averaging 30 pounds to the bushel. It was grown in the State of Indiana and graded No. 3 and offered by this firm at 44½ cents per bushel.

* * *

John O. Foering, former chief grain inspector of the Commercial Exchange, was appointed by J. Hampton Moore, mayor of Philadelphia, as one of the 26 delegates to represent the city at the 15th annual convention of the Atlantic Deeper Waterways Association held at Portland, Maine, September 12 to 15 inclusive.

* * *

The number of cars unloaded at the Girard Point Elevator during the month of August, 1922, was: 2,323 wheat, 142 corn and 153 rye; at the Port Richmond Elevator: 438 wheat, 65 corn, 21 oats and 4 rye; at the Twentieth Street Elevator: 17 corn, 67 oats, 4 rye, 1 barley and 1 milo-maize.

* * *

The largest cargo of wheat ever shipped from the Port of Philadelphia recently left on the steamship *Aldermain*, bound for Rotterdam. It consisted of 399,431 bushels and was loaded at the Pennsylvania System, Girard Point Elevator, and the actual loading process required three days.

* * *

N. B. Kelly, general secretary of the Philadelphia Chamber of Commerce, has sailed for Europe to make a study of economic conditions in England, France, Germany and Belgium. He is a member of a commission made up of 25 business men from various parts of the United States, and will represent this city and state at all meetings abroad.

* * *

Emil P. Albrecht, president of the Philadelphia Bourse, has returned to his office from an extensive tour of Europe, having been gone since the latter part of June. He made the trip primarily for a rest, but Mr. Albrecht came in contact with many men and it is expected he will present an interesting report to the Board of Directors when they convene next month.

* * *

Much alarm is being caused among officials of the Pennsylvania Department of Agriculture over the menace of the Japanese beetle in Bucks and Philadelphia Counties and they will ask the next legislature for an appropriation to go after the pest in a more extensive manner. Frederick Rasmussen, secretary of the Department, has received reports which indicate a grave condition and he believes that the big fight will have to be made next year, if the agricultural counties in southeastern Pennsylvania are to be saved from the invasion.

* * *

The 1922 wheat crop is already being handled in bulk by Berks County (Pa.) millers. The price paid is about $1 per bushel, but the farmers, instead of holding back, are selling now to avert a shrinkage in the grain and loss due to the Angoumois moth, which appears in the kernels after storage. Last year the price to the farmers ranged from 90 cents to $1.10 per bushel. The yield is normal this year, from 20 to 24 bushels an acre, and the acreage is very large.

* * *

Notice has been issued by the Pennsylvania System and the Philadelphia Grain Elevator Company that hereafter all Red Winter and Garlicky wheat with moisture content of 15 per cent or over will only be accepted at the Girard Point Elevator and the Port Richmond Elevator, subject to drying before being placed in storage. All cars of wheat coming under the above conditions will be dried on orders of the Inspection Department of the Commercial Exchange.

* * *

A train consisting of 47 cars, loaded with 75,000 bushels of wheat, recently left an elevator in Buffalo, N. Y., traveling on the Pennsylvania System, and loaded into two waiting vessels in the Delaware River, Philadelphia, Pa., all in the record time of 72 hours. In that time the wheat, which was destined for Hamburg, Germany, has been handled through four elevator operations, had made a journey of 416 miles by train and had been carried by barge from the Girard Point Elevator to the waiting ships at Pier 53 South Delaware Wharves.

* * *

At the request of the Commercial Exchange, municipal authorities in Philadelphia will study a state law governing the hauling of loose hay through the city, and issue appropriate instructions to the police. A committee of the Exchange, headed by President Walter K. Woolman, asked Mayor Moore to enforce the law, which prohibits motor vehicles carrying a load of hay over 90 inches in width. The Mayor was told that many vehicles exceed the authorized maximum weight, and that the hay is a fire menace and conceals the truck's license tag as well as the figures which denotes the maximum authorized weight. Superintendent of Police Mills, who was summoned to the conference, said the act was difficult to enforce because it apparently does not apply to horse drawn vehicles, and the motor truck operators allege it is discriminatory and unfair.

* * *

According to the Bureau of Crop Estimates of the Department of Agriculture the condition of corn in Pennsylvania on September 1 is 86 per cent of a normal compared with 92 per cent on August 1 and a 10-year average of 86 per cent, forecasting a yield of 66,277,000 bushels compared with 70,901,000 bushels on August 1 and a 5-year average of 64,292,000 bushels.

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The condition of oats in Pennsylvania on September 1 is 87 per cent of a normal compared with 90 per cent on August 1 and a 10-year average of 87 per cent, forecasting a yield of 41,467,000 bushels compared with 41,782,000 bushels on August 1 and a 5-year average of 41,223,000 bushels.

* * *

Bituminous coal fields in Pennsylvania hold 43,830,860,000 short tons of recoverable coal according to a survey just completed by the Bureau of Topographic and Geological Survey of the Pennsylvania Department of Internal Affairs. From the figures made public recently by James F. Woodward, secretary of the Department, it can be seen that the present generation will have little cause to worry, for it is estimated that at the present rate of consumption the supply will last approximately 290 years. Prior to the completion of the survey it had been generally believed that the bituminous fields held at least 75,000,000,000 short tons of recoverable coal which would last approximately 500 years. The original bituminous deposits in Pennsylvania reached a total of 75,259,055,000 tons and thus far only 5,519,665,000 tons have been mined out. Waste and unrecoverable coal leaves a total of 43,830,860,000 tons which can be mined out and used.

* * *

Plans are under way for the construction of a new export grain elevator and it is expected that the Philadelphia & Reading Railway Company will embody in their plans the most modern features of construction and the latest equipment obtainable at their Port Richmond Elevator. This structure has been a long needed addition to the satisfactory conduct of Philadelphia's export grain trade.

For several years it has been agitated by members of the Commercial Exchange, but only recently did the officials of the Reading company feel that construction costs had sufficiently come down to justify them taking definite steps to build the elevator. While no official announcement has been made as to the plans which the Reading company has in contemplation, it is urged by the grain operators that the new structure be of not less than 3,000,000 bushels capacity. Members of the Commercial Exchange are also agitating the need of increasing the capacity of the Pennsylvania Railroad's elevator at Girard Point an additional 1,000,000 bushels which they insist is required if the port is to be placed in a position to compete with rival ports in grain exports.

In line with its program to assist in every way the movement of grain via the Port of Philadelphia, the Pennsylvania Railroad has awarded a contract to the Pussy & Jones Company for the construction of a new large capacity floating elevator, and three additional steel grain barges. This equipment will be used to supplement the work of the Girard Point Elevator by providing improved facilities for the transfer of grain from Girard Point to vessels at other piers in the Delaware and Schuylkill Rivers.

The new elevator will have a loading capacity of 12,000 bushels per hour, and will replace an old elevator, now in use, having a capacity of only 3,500 bushels per hour. Another elevator which is at present in use and has a 7,500-bushel hourly capacity, will be continued in service, so that upon the completion of the new elevator the combined loading capacity, from floating equipment, will be 20,500 bushels hourly.

The three new steel barges will be of 40,000 bushels capacity each, and will replace one existing barge of 24,000 bushels capacity and two of 16,000 bushels capacity, each. Three other existing barges, one of 16,000 bushels capacity and two of 24,000 bushels capacity, each, will be retained, so that when the new barges are received the combined carrying capacity of all equipment available for the floating grain service will be 184,000 bushels. The new elevator and barges will give the Pennsylvania Railroad the most complete and modern floating equipment for loading grain in the Delaware River.

KANSAS CITY

B. S. BROWN - - CORRESPONDENT

EXPORT demand for wheat at the Gulf ports has been practically at a standstill since the movement of the new Canadian crop got under way and Kansas City dealers do not expect any revival in demand as long as wheat from the provinces is available to European buyers at discounts under the basis in this country. Several local firms reported free reselling at the Gulf October position which were replaced with Manitobas, an unusual procedure in the Southwest. Most of the Canadian wheat bought in this manner was 2½ to 3 cents cheaper than the Gulf wheat, which does not include the better quality of the northern grain. The switching of sales was possible only in cases where tonnage at the Gulf had not been contracted for. It is unusual for Winnipeg to be at discount under American winters as Canadian wheat generally is a little higher than this country. The situation is due to the large Spring wheat crop and the increasing selling pressure at a time when foreign demand is only fair.

"The trade at Winnipeg is confident that the Canadian wheat crop is larger than the last official estimate of 321,000,000 bushels," a Kansas City exporter said recently on his return from that market. "Most private estimates are around 360,000,000 to 370,000,000 bushels and a few think that the record of 394,000,000 raised in 1915 might be exceeded."

* * *

With the possible exception of the Union Pacific, all roads in the Kansas City territory are short of grain cars and have been unable to meet shippers' demands for weeks, W. B. Lathrop, chairman of the Board of Trade Transportation Committee said recently. "Pressure to sell wheat has been less pronounced than in other seasons and consequently less has been said about the shortage. Country elevators over a wide territory are full and would market the wheat if cars were available. With prices low at country points and transportation uncertain, there seems to be more of a tendency than usual for farmers to hold their wheat. Even after the railroad labor troubles are settled, it probably will be many weeks until transportation conditions are anything like normal." Elevator operators report a continued shortage of cars for outbound shipments from Kansas City, due in part to the fact that good box cars are being drawn east and held there.

* * *

There has been no accumulation of wheat in Kansas City thus far. Total stocks the first of the month were a little more than 3,000,000 bushels, about the same as at the end of the crop season.

* * *

Kansas City coarse grain handlers expect a good demand from the extreme Southwest this season, due to poor forage crops in that section. Corn was damaged by drouth and in some sections has not been large enough for feed requirements thus far in the season and Kaffir and milo were poor over a wide area. Numerous dealers reports a good inquiry already from sections that do not buy ordinarily until late in the season, but trade has not been active yet, due to the uncertain transportation conditions.

* * *

A special Advertising Committee composed of A. L. Ernst, Harry J. Smith and J. E. Bahm has been appointed by the Kansas City Board of Trade to supervise and pass upon all advertising of member firms, including market letters, circulars, printed matter, trade papers, gifts, donations and subscriptions, intended to influence shippers.

* * *

Members of the Kansas City Board of Trade recently defeated an amendment empowering the directors to execute a blanket surety bond guaranteeing railroads against loss on charges for freight handled or received by individual members.

* * *

The Kansas State Grain Inspection Bureau expected to have its wheat testing laboratory in full operation before the end of the month. Marvin B. Sudsberry, formerly with the Estabrook interests, will be in charge. It is planned to have a staff of seven. A laboratory is now in operation at Hutchinson and one will be opened later at Wichita. The charge for a protein test will be 50 cents. Indications are that the demand for protein and other chemical tests will be large from the outset, as nearly all wheat is sold to mills on that basis at present.

* * *

A car of Colorado wheat was received by Dilts & Morgan recently which had been on the way a little more than a month. Ordinarily five days is required for such shipments.

* * *

With 15,000,000 bushels of wheat awaiting shipment in Kansas at present, the railroads serving that state have fewer cars available than at any time since 1920, according to a recent report by Clyde M. Reed, chairman of the Public Utilities Commission. He has begun effort to relieve the shortage. The state is nine points below last year in the number of available grain cars, the report shows. This means a shortage of about 15,000 cars. Practically all the elevators in the state are full and reports are coming to the Commission of wheat being piled on the ground.

* * *

Wheat receipts at Kansas City in August were 8,619 cars, slightly larger than in July and a few cars under the 10-year August average. Compared with a year ago, there was a decrease of about 30 per cent and with two years ago an increase of 36 per cent. Corn receipts were slightly under the average and oats were the smallest for August, with one exception, in 10 years.

* * *

Merle H. Howard of the Updike Grain Company is an applicant for membership in the Kansas City Board of Trade in transfer from his father, Frank A. Howard. The latter has been in poor health for some time.

* * *

Red wheat has been relatively stronger than Hard and Dark Hard at Kansas City the past few weeks, due to small supplies and a sustained demand from mills for the better grades. Prices for all grades, however, are still close to $1.

* * *

Prices of wheat at country stations in the territory that ships to Kansas City have been well under $1 for many weeks and generally are the lowest since before the war. Good wheat at nearby points has been bringing 85 to 90 cents for wagonloads, while in central and western Kansas and in eastern Colorado the country price has been around 75 cents in many cases. Many expressions of dissatisfaction are heard and there appears to be more of a tendency to hold than usual. Receivers say that selling by renters was over the middle of August.

CINCINNATI

HARRY A. KENNY CORRESPONDENT

TRAFFIC tie-ups, due to embargoes on all railroads entering Cincinnati, and a car shortage, are largely responsible for the quietude that has crept into the local grain and hay market. Actual sales during the past month were below those for the previous month. There are between 500 and 600 cars of grain and hay tied up in embargoes on the Southern Railroad. In some instances shipments have been in transit 30 days or more. The situation as to cash wheat is unchanged so far as receipts and prices are concerned. Export and milling demand was slightly improved during the latter part of August. Shipping orders for southern mills were larger and elevator stocks, by no means large, are being drawn on liberally because of the inadequacy of receipts.

As far as the hay market is concerned it is oversupplied and as a result prices have decreased between $1.50 and $2.00 a ton. Deliveries on new hay have been very poor. Dealers are experiencing greater difficulty in getting products into Cincinnati than sending them from here to other points. Buyers in many instances are manifesting every precaution when placing orders, as they are not eager to buy to any great extent in view of the present unsettled conditions.

Personal views of the trade regarding the abnormally small movement varied considerably, but it was generally believed that the car scarcity and current low prices was largely responsible for the curtailed receipts. The ability of Southern buyers to purchase on a lower basis in competing markets continues to restrict shipping inquiries and orders.

* * *

The Cincinnati Grain & Hay Exchange has established a call system on its exchange floor, which follows immediately after the daily auction. This practice while not new to the trade in general, has never been in operation here. The Committee on Auction which consists of Elmer Heile, Chairman; W. R. McQuillan, E. A. Smith, and Earl Kramer has charge of the new practice.

* * *

Interpretation of the priorities rulings of the Interstate Commerce Commission under Service Order No. 23 has been requested by the Cincinnati Grain and Hay Exchange as a means of getting action on movements of grain and hay held up on sidetracks of the Southern Railway. The claim has been made that the Interstate Commerce Commission has been instructing the Southern's officials to give priority to coal cars over all other classes of movements since June 26. Under these instructions motive power has been used to roll empty coal cars to mines, when wheat, oats, corn and hay have been left standing at Danville, Burgin and Somerset, Ky. As a consequence flour and feed mills of the Southeast have had to shut down because their grain had not been delivered. Some of this freight has been held up 30 to 60 days. The contention of the Cincinnati Grain and Hay Exchange is that the priorities fixed by Service Order No. 23 places coal fifth on the list, with food for human consumption, for animals, livestock and perishables, ahead of it in the allocation of available cars. The traffic department of the Grain and Hay Exchange wants instructions given to the Southern and other railroads to follow out the priorities as listed and place coal in its fifth place on the list. In this way, the grain dealers say, they hope, to get their wheat and hay started moving towards its destination.

* * *

G. A. Hallam, inspector at the Lawrenceburg (Ind.) branch of the Cincinnati Grain and Hay Exchange has been transferred to this city where he will act as assistant chief inspector in the local exchange. This position was recently created by the Exchange Board. Mr. Hallam who is thoroughly experienced, with an intimate knowledge of all details of grain inspection, will have complete charge of the personnel of the office and will assist George F. Munson in the supervision and exacting work of the department.

* * *

J. H. Martin, manager of the hay department of the T. M. Dugan & Co. has returned from a month's trip through the Central States during which he combined business and pleasure. Mr. Martin who made the trip by motor was accompanied by his family.

* * *

H. Lee Early of the Early & Daniel Company and his family are enjoying a month's vacation at Lake Yawse, Ind.

* * *

The partnership concern of Bingham, Hewitt, Scholl Company, one of the largest and most prominent firm's connected with the grain business in this part of the country has been dissolved by mutual agreement. For many years the company has operated large grain elevators in Cincinnati, Louisville and Indianapolis. Under the terms of the agreement, H. H. Bingham is given the elevator at Indianapolis. He will operate under the firm name of the Bingham Grain Company. The elevator at Cincinnati goes to Fred W. Scholl, where he will continue the business as the Scholl Grain Company. Leonard Hewitt, who takes over the holdings of the old company at Louisville, has not definitely decided as to the name under which he will operate. Mr. Scholl, who has maintained his residence at Indianapolis, will move to Cincinnati. Elmer Voss, who has been associated with the local interests of the firm for many years will continue as secretary and treasurer of the new Scholl Grain Company of Cincinnati. There will be no change in the methods of conducting the various businesses, but each expects to increase their facilities so as to be able to better serve their patrons.

* * *

John DeMolet, president of the Cincinnati Grain & Hay Exchange, accompanied by Mrs. DeMolet and several friends, left this city recently on a three weeks' vacation to be spent at Atlantic City, Washington and New York. George Wirth will look after Mr. DeMolet's grain interests during his absence.

* * *

A feature of the outing of the Minute Men of the Cincinnati Chamber of Commerce at the Zoological Gardens, September 9 was the baseball game between nines representing the Minute Men and the Cincinnati Grain & Hay Exchange. I. W. McMahan was captain and pitcher of the Minute Men and A. H. Hess, captain and centerfielder of the grain and hay men. The game was called at the end of the fifth inning, with the score 14 to 4 in favor of the grain and hay dealers. D. W. Hopkins and A. H. Hess of the Grain and Hay Exchange finished first and second respectively in the men's medley race. The event was in the nature of a community gathering and 51,000 tickets were distributed about the city for the convenience of the public.

* * *

Arthur Garnett, an assistant in the local inspection department of the Cincinnati Grain & Hay Exchange, has been transferred to the Lawrenceburg (Ind.), branch to succeed G. A. Hallam, who has been transferred to the Cincinnati office.

ST. LOUIS

S. F. LARRIMORE CORRESPONDENT

ARRANGEMENTS have been made for a special train to convey the St. Louis delegation on October 1 to the Grain Dealers National Convention at New Orleans. The following members of the St. Louis Exchange have ordered space on the special: George F. Powell, John O. Ballard, Wm. T. Hill and party, W. C. Engel and wife, Roger Annan and wife, Herman Von Rump and wife, John H. Herron and wife, George C. Martin and wife, W. J. Edwards and wife, T. A. Bryant and wife, W. K. Woods and wife, Ward Smith and wife, Langenberg Bros., Marshall Hall Grain Company, Eugene Smith and wife, Charles Rippin and wife, Louis Schultz and wife, Robert Napier and

wife, Hermann Miller and wife, Charles Wilson and wife, Harry Watson and wife, Samuel Whitehead and wife, Christian Bernet and wife, Henry Craft and wife, Judge Culberson and wife and E. T. Stanard and wife.

* * *

Wm. M. Paris of Henry Rang & Co., Chicago, has made application for membership in the St. Louis Merchants' Exchange, the membership to be transferred from W. H. Bartz. Malcolm W. Fuhrer, of the Fuhrer-Ford Milling Company, Mt. Vernon, Ind., has also made application for membership, to be transferred from Lyman W. Putnam.

* * *

Engineers have been engaged to make estimates for the McDaniel Milling Company, of Carthage, Mo., to erect an addition that will result in doubling the elevator capacity of the plant, which at this time is 300,000 bushels. The present elevator was built in 1918 and replaced an elevator that had a capacity of 65,000 bushels.

* * *

The J. H. Hays Industries Company will soon let a contract for the construction of a 100-barrel flour mill at Osage City, Mo., to be run in connection with an elevator now under construction.

* * *

Southeast Missouri farm organizations have made an arrangement to begin at once to standardize wheat and corn grown in that section. Fultz, Fulcaster and Poole wheat will be used and St. Charles White, St. Charles Yellow, Boone White and Yellow Dent corn have been adopted. The organizations active in this work hope to materially increase both the quantity and value of the yield of those grains in that section.

* * *

Rice prospects are not as encouraging this year as they have been for several years past, according to U. C. Smith of the Dudley rice farm near Poplar Bluff, Mo. About 1,000 acres in Butler County is in rice this year and the growth is being interfered with seriously through the presence of smart weed, which is sapping the strength of the plants and causing the growth to be late. It is estimated that the yield will not be over 30 bushels per acre. Agricultural experts will be appealed to for a remedy to do away with the weed trouble.

* * *

The Farmers' Grain Elevator Company has been incorporated at Butler, Mo., with a capital stock of $50,000 and will do a general business in hay, grain, feeds and coal.

* * *

Fired by burning cobs, the Henn & Briggs Elevator at Redmon, Ill., burned August 22. The building was full of corn, wheat and oats, which was a total loss. A garage in the vicinity was also destroyed and nothing but a lull in the wind saved the village from destruction. This is the second elevator burned on the site.

* * *

The Concordia Farmers' Co-operative Company has been formed at Concordia, Mo., with a capital of $10,000 and will deal in farm products and merchandise.

* * *

The following notice was recently posted on the bulletin board of the St. Louis Merchants' Exchange: "The Wabash embargo has been modified and they will now accept grain for St. Louis from all points except stations between Sanberry, Mo., and Council Bluffs, Iowa, inclusive."

* * *

E. C. Dreyer, president of the United States Feed Distributors Association, reports that an effort will be made to modify some of the rules governing the handling of feedstuffs, at the annual meeting which will be held in Chicago, September 27 and 28.

* * *

The following stocks were in public and private elevators at St. Louis August 31:

	Public	Private
Wheat	234,514 bushels	210,731 bushels
Corn	104,216 "	7,329 "
Oats	160,702 "	2,046 "
Rye	7,750 "	1,337 "
Barley	1,870 "	

Stock of flour in St. Louis were as follows: September 1, 1922, 57,000 barrels; August 1, 1922, 37,800 barrels, and September 1, 1921, 53,100 barrels. St. Louis shipped 126,570 bushels of wheat; 40,040 bushels of corn and 3,625 bushels of oats by barge line during the month of August.

* * *

Irvin K. Brown has resigned his post with the Farmers Feed & Produce Company, Linn, Mo., to take a position as traveling salesman for the Ralston-Purina Mills Company, of St. Louis. He will be succeeded by William P. Brinkley.

* * *

The Virden Mill & Elevator Company has been incorporated with a capital stock of $50,000 at Carlinville, Ill.

* * *

One hundred merchants, planters and bankers of Northeast Mississippi were entertained by the St. Louis Merchants' Exchange and the St. Louis Chamber of Commerce recently. The visitors were on their way home from a tour to study dairying in Illinois, Wisconsin and Iowa.

* * *

R. E. Davis, director of the Missouri Farm Bureau Marketing Service, has announced the opening of a warehouse at St. Louis which will serve Farm Bureau members on the east side of the state in the same way the big warehouse at St. Joseph has been serving them in the northwest. The warehouse is located at No. 4116 North Union Avenue, St. Louis.

* * *

The following were visitors on the floor of the St. Louis Merchants' Exchange recently: Messrs. J. Der Vinter, Wichita Falls, Texas; H. Eckhoff, New York, N. Y.; H. E. Conklin, Binghampton, N. Y.; R. Eldridge, Kansas City, Mo.; Max Nowak, Buffalo, N. Y.; G. G. Goodman, Gallup, N. M.; Geo. Lamy, Chicago, Ill.; O. E. M. Keller, Chicago, Ill.; A. H. Barlow, Chicago, Ill.; H. C. Young, Sikeston, Mo., and others.

* * *

St. Louis market quotations are being broadcasted by station K S D, on wave length 485 meters. Schedule is: 8:40 a. m., opening futures; 9:40 a. m., receipts and shipments; 10:40 a. m., futures; 11:40, futures, and 12:40 noon, closing futures and cash market.

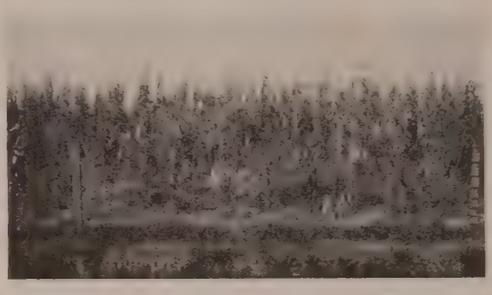
* * *

E. J. Mahoney, of Dexter, Mo., once known as the "Corn King of Missouri," filed a petition in bankruptcy in Federal Court at Cape Girardeau, Mo., recently. He listed his assets at $900. Several years ago his wealth was estimated at about $100,000.

NEWS FROM NORTHERN OHIO

BY T. J. CUNNINGHAM

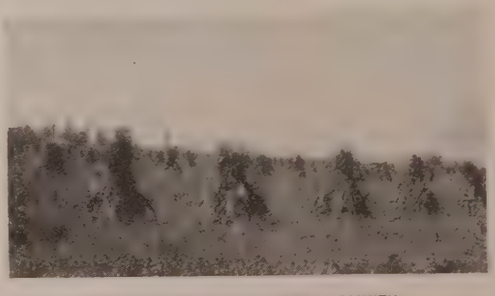
From present indications, Seneca County, Ohio, will have a very good crop of corn. Where it was gotten out early it will be especially good, but the late-planted fields are still in doubt. The recent hot weather has helped these late fields very much, however. In the northwest corner of Seneca County, the farmers



FIELD OF CORN AFTER HAIL STORM

make a specialty of corn, and some of the best corn in Ohio is raised there. The illustration, herewith, shows a field in this locality which was cut during the week ending September 2, and which is in fine condition.

There is some wonderful corn in Hancock County, also; but in this county, to the southwest of Findlay, much corn was entirely ruined throughout a strip at least a mile wide, as a result of the hail storm of



CORN IN SHOCK IN SENECA COUNTY

July 31. The photo reproduced here shows this corn as it looks at the present time. Think the territory embraced by Seneca, Hancock, Crawford, Wyandot, Hardin and Marion Counties, should have somewhere between 75 and 85 per cent of a normal crop.

* * *

Allen County claims the state record for wheat this year. On the farm of Wm. Risser, growing Trumbull wheat, an average of 39 bushels to the acre was raised.

* * *

Frank Bacon, the well-known proprietor of Pioneer Mills, Tiffin, has quite a reputation as a jokester amongst the grain trade. However, when he called the police recently to stop nude boys bathing in front of his residence and then found that his young Roger was a member of the party, he began to distribute cigars.

* * *

The "Ohio Grain Sales Company" is to become a fact if proposals sent out by a grain marketing committee of nine, representing the Ohio Farm Bureau Federation, the State Grange, and the Farmers Grain Dealers Association, are adopted. This would be one of the largest co-operative organizations ever set up in the state. The plan calls for a stock company with the ownership made up of farmers co-operative elevators and local co-operative organizations owned and controlled by farmers. The business will be conducted on the basis of a cash sales agency, buying grain outright from local co-operatives and selling to the highest bidder. After a commission charge has been made, all additional net profits will be sent back to the local companies for distribution to farmers on basis of patronage furnished.

* * *

According to C. J. West, State-Federal crop reporter, hay acreage is 7 per cent larger than last year. It is also estimated that the crop will be 1.45 tons per acre with a total yield of nearly 5,000,000 tons. Buckwheat also shows an increase of about 5 per cent with a total estimated yield of 445,000 bushels.

* * *

Ottawa County claims an average yield of 35 bushels of oats per acre. So far, the heaviest yield reported is from a farm in Carroll Township where 185.5 bushels were threshed from three acres.

* * *

Farmers are being advised by county agents to turn hogs into newly-cut wheat fields to stamp out volunteer wheat. It is claimed that where it appears in any great quantity, it is just as effective in carrying over the Hessian fly as early sowed wheat.

* * *

Northern Ohio wheat of the standard varieties, submitted for inspection as certified seed, is running around 61 pounds to the bushel, according to Wallace E. Hanger, crops extension specialist at Ohio State University. Wheat of the same varieties from southern counties is weighing only about 56 pounds to the bushel.

* * *

The Commercial Bank, Bowling Green, Ohio, has purchased the three-story brick block of the Royce & Coon Grain Company.

* * *

Sometime this month entomologists of Ohio State University and State Experiment Station will establish Hessian fly emergency cages in Williams County and in one county on the Lake Erie shore. They will plant small trap plats of early-sown wheat and inspect the same 100 plants in these plats every day with a magnifying glass, making a count of the number of Hessian fly eggs that have been laid on the plant within the previous 24 hours. In this way they will determine safe sowing dates for wheat in Northern Ohio.

* * *

W. E. Hanger, crops extension specialist, states that the main aim of the extension work, which has been done during the last few years to interest Ohio farmers in standard wheat varieties, is to eliminate poor milling varieties, and to standardize on good, Soft Red Winter wheat of high milling quality, so that Ohio will become known for such wheat. The standardization work, so far, has been centered on four varieties: Trumbull, Fulhio, Gladden and Portage. The first two are selections from Fultz, while the last named is a Poole selection.

* * *

On August 21, the Central Elevator & Grain Company, Toledo, suffered from a fire starting from spontaneous combustion, which resulted in damage to building and contents of about $1,500.

* * *

On August 24, Frank Bacon, of the Pioneer Mills, with his wife and son Roger, attended a reunion of the Bacon family at Nevada, Ohio.

* * *

After suffering from a 30-day drought which threatened corn and sugar beet crops in the vicinity of Continental, that section was favored with heavy rains during the week ending August 26.

* * *

There is now some talk that if Ohio has a cold, early fall it is likely to bring about a seed corn condition such as ruined the crop of 1918.

* * *

A number of farm bureau leaders in Athens County together with six millers met recently and arranged to bring three carloads of improved Trumbull wheat into the county. They say they are being forced to bring in most of the seed wheat for this fall, because of an unsatisfactory crop this year. They are using this emergency to work toward standardization on the better yielding and milling wheats. Two mills in Ashtabula County are acting as the distributing agencies for 22,000 bushels of Trumbull seed wheat, which was purchased recently from growers in Delaware County.

* * *

The Interstate Commerce Commission has been requested by the traffic department of the Ohio Farm Bureau Federation to place fertilizer on the priority list of the commodities handled by public carriers.

* * *

Coal prices will be lower and home supplies certain, according to H. L. Breckenridge, fuel administrator for Lima and 10 northwestern Ohio counties, who advises against purchases at present prices.

* * *

County Agent Reed has just returned to Tiffin after a three-day trip to Ottawa, Canada, where, with other agents, he inspected the corn borer situation and methods of control. Farm agents from 22 counties in northern Ohio made the trip. Near Pt. Stanley, the borer was found in great numbers in the corn fields,

and the party spent a whole day there. At present, the borer is well under control, according to Agent Reed. Riley Township, Sandusky County, is the locality nearest here to be infected with the borer. A belt of territory extending from Toledo to Ashtabula has been quarantined. While this is on, no fodder or corn on the cob can be sent out.

* * *

Due to continued cool nights, Hancock County does not anticipate a corn yield of more than 20 bushels to the acre. Reports from this same county indicate that their Clover seed crop will not equal that of normal years. About a bushel to the acre is all that is expected.

* * *

A severe electrical and wind storm swept over Wood and Hancock Counties on the night of September 1, greatly damaging the corn crop.

* * *

Although oats have not been yielding very well here, a 22-acre field threshed recently in this county yielded 934 bushels, which is about 42½ bushels to the acre.

* * *

State inspectors have discovered considerable barberry in Seneca County. This sustains spores of black rust and the plants have been ordered destroyed. This, it is claimed, was largely responsible for the poor showing of the wheat crop here this year.

* * *

September 23 has been set as the fly free date for sowing wheat here this year, and the state department has issued a warning to farmers not to sow before that date.

* * *

Theodore Beal, Brooksville, Ind., has succeeded A. A. Olson as Crawford County farm agent. He will take office October 1.

* * *

Until recently dealers have had quite a nice retail trade in shelled corn to farmers. This has dropped off considerably, and it is generally supposed that farmers are "snapping" all the corn they require for their immediate feeding use.

* * *

The prolonged hot wave was broken here, when it started raining on the evening of September 10 and continued with heavy showers throughout the night, during which time 1.22 inches of rain fell. From extreme heat, the temperature changed over night so that it became uncomfortably cool. Farmers had been at work getting ground ready for wheat, and this will temporarily check them, but will put the ground in better shape for working. Many farmers have said they would put out little or no wheat, on account of low prices and failure of crop for the last couple of years. In spite of this, quite an acreage has already been prepared here, and it now looks as though the usual amount will be sown. Think less wheat is moving from farmers here, at the moment, than has ever been the case before at this time of year. The small yields, coupled with the low price, have been very disappointing to the farmers, and wherever possible they are holding in hopes of an advance to help them out.

* * *

Whatever the results of the corn crop elsewhere, this territory will have a fairly good crop. The early-planted corn here is unusually good, and the recent hot weather helped along some of the late-planted corn. Quite an acreage of the early-planted corn has already been cut, and shocks up very nicely. There should now be a good movement of old corn from farmers, as they will need the crib room for the new crop. Most of the old corn held by farmers here, has been awaiting $1 per hundred to move it.

Oats is the scarcest grain here, the crop having been very much of a failure. As this was also the case last year, what few oats were raised are sticking pretty close to the farmers' bins.

The Clover seed crop here is a good one and the quality excellent. Most of the seed brought to market, so far, has been Mammoth, and it has run uniformly nice; but the yield has been only 1½ to 2 bushels to the acre. The recent heavy rains will put a temporary check to the seed making, but will not injure the seed to any extent.

Timothy seed is still coming in, and is of varying quality. While there is some very nice seed, much of it has come from localities where it is not usually made, and in such cases it contains a plentiful mixture of foreign seeds, due to having been cut too low.

* * *

In spite of the light movement of grain, cars are none too plentiful, and dealers are sometimes obliged to wait three weeks and more after ordering cars.

GRAIN NEWS FROM BOSTON

BY L. C. BREED

There is no matter in which the trade in general are more interested than that of transportation. The departments of the Boston Chamber of Commerce which have it in charge are constantly seeking to improve the facilities of this port in its export business and its local trade. The latest movement in this matter is that of establishing new rail and lake service between New England and the West via Ogdensburg, N. Y. The Chamber recently was authorized to announce that at lake ports and east grain rates from Odgensburg to New England are now in effect. Also westbound rail and lake differential rates from New England. The Rutland-Lake Michigan Transit Company will operate the steamers from Ogdensburg, and the grain elevator of 600,000 bushel capacity which is located there.

* * *

The first step toward making the Chamber's new building an accomplished fact has been completed. Last week the building wreckers leveled the last of the five old structures which had been occupying the site of its new home and now the location is ready for excavating for the foundation. The members are looking forward with keen interest to the time when the organization will occupy the finest Chamber of Commerce in the United States.

* * *

Exports of grain and cereals through this port show a heavy increase for the first seven months of the present year over the corresponding time in 1921. The records show that up to July 30, the export shipments amounted to more than 6,500,000. Exports of flour during the same period totaled 178,686 sacks. The railroad strike has recently resulted in delaying some shipments. Foreign arrivals at this port for the month of August are far ahead of any similar period. The total number was 206, from all quarters of the globe.

Newspaper despatches from Washington, in referring to pending legislation, state that after disposing of the Liberian loan, the grain gambling bill will be taken up. Just who is responsible for designating the option business as "gambling," it might be difficult to ascertain. In connection with this matter, the proper committee of the Chamber is keeping track of this bill and will support the measures adopted for dealing with it in harmony with other Exchanges.

* * *

The coming annual convention of the National Association at New Orleans is receiving the attention of some of the grain men, but it is not possible at present to state how many will attend it from this section.

* * *

In the matter of labor legislation, interest is being awakened in the Kellogg Bill which is now in the hands of a committee in the Senate. It is said to be a very far-reaching bill and has the approval of President Harding, as well as some of the Congressmen. It also has the approval of some of the leading trade journals, and the editors have called attention to it. Every trade organization should, it would seem proper to suggest, take occasion to procure a copy of this bill, and if its provisions meet their views, get behind it and aid in securing its passage when it comes before Congress. In the situation which confronts the country, the most practicable remedy is for the business men to unite in supporting a good bill of this character.

TRANSPORTATION

CAR SURPLUS AND SHORTAGE

The average daily surplus of freight cars in good order is declining rapidly and the shortage is increasing. In the period August 15-23, the surplus totaled 120,961 cars, a decrease of 19,292 cars, as compared with the period August 8-15, according to the report of the car service division of the American Railway Association. The average daily shortage jumped to 43,519 in the period August 15-23, as compared with 37,172 in the period August 8-15.

WESTERN PRIORITY ORDERS

As a measure for saving as much of the fruit crop of the West as possible, to expedite the movement of fuel, foodstuffs, feed for livestock and other essential commodities, the Interstate Commerce Commission on August 31 issued a preference and priority order for application west of the Mississippi. To the extent of their inability currently to handle all freight traffic ordered, the railroads were directed to put aside traffic in commodities other than those mentioned until they can conveniently move it. They are to move the necessary empty cars in the same way.

ELEVATOR SITE RENTALS UP IN NEBRASKA

In a brief filed with the Railway Commission on August 24, Attorney Fred M. Deweese, representing the Nebraska Farm Bureau Federation and the Nebraska Farmers Co-Operative Grain and Livestock Association contended the Commission should exercise its jurisdiction over the rentals charged elevator owners by railroads for space in right of way to protect the elevator men from being victims of excessive charges.

Deweese says the Northwestern Railroad has raised the rent on one elevator at Dodge, Neb., from $18 to $76.23 per year and other elevators have been boosted in a like manner.

IOWA AND MINNESOTA RATES

A hearing before the Iowa Railroad Commission was held recently in the effort to reduce rates which are on an unfair basis compared with those of Minnesota. A careful investigation of the Iowa intra-state rates develops the fact that the grain rate level of Iowa is higher than Minnesota and that farmers and grain dealers of Iowa are paying higher grain rates than farmers and grain dealers of Minnesota are paying.

The aggregate of rates to and including a distance of 400 miles in Iowa is on an average of 116 per cent of the corresponding aggregate of rate in Minnesota. This disparity goes to the extreme of an Iowa corn rate that is 171 per cent of the corresponding Minnesota rate. For example the Minnesota corn rate for five miles is 3½ cents as compared with the Iowa corn rate for five miles which is 6 cents per 100 pounds. The Interstate Commerce Commission has recently showed that the average quantity of wheat per car as shipped was 81,200 pounds so that the Iowa charge for a car lot of wheat is $52.78 for five miles which is $10.56 per car, per mile.

Volume and quantity are important factors in the establishment of rates. The total grain production of the State of Iowa for 1921 was 610,000,000 bushels which is 212 per cent of the grain production of the State of Minnesota. In 1921 the production of grain in Iowa was 10,750 bushels for each square mile, whereas, the grain production of Minnesota was only 3,556 bushels for each square mile.

GRAIN RATES SUSTAINED

Examiner I. L. Koch has recommended the dismissal of No. 12965, Merchants Exchange of St. Louis et al. vs. Aberdeen & Rockfish et al., on a finding that rates on grain, products and feed from Ohio and Mississippi River crossing, Cincinnati to New Orleans, inclusive, and points north and east thereof, to southern territory, are neither unreasonable nor unduly prejudicial. A like finding was recommended as to the transit and reshipping rules. The object of the complaint was to break up the system in the South under which local millers ship out products on any-quantity rates. The complainants at the river crossings said that system was unduly prejudicial to them.

CAR LOADINGS

Revenue freight loading spurted upward the week ended August 26, due to increased coal loading, the total being 890,838 cars, the largest since October 21, 1921. This was the eighth week of the shopmen's strike. Loadings in the corresponding weeks of 1921 and 1920 were 828,883 and 1,001,308, respectively. The loading of 890,838 cars was an increase of 34,679 cars over the preceding week. It was about 23,000 cars in excess of the highest record heretofore made this year.

Total loadings for the week ending August 26, and for the corresponding week of last year were, all roads: Grain and grain products, 54,562 and 58,838; livestock, 32,046 and 26,919; coal, 111,030 and 159,513; coke, 8,390 and 4,631; forest products, 60,466 and 47,408; ore, 65,041 and 31,912; merchandise, L. C. L., 230,000 and 222,455; miscellaneous, 329,393 and 277,207; total, 1922, 890,838; 1921, 828,883; 1920, 1,001,308.

CONDITION OF CARS

Revenue freight cars in bad order as of August 15 totaled 335,575, or 14.8 per cent of the total on line, as against 15.3 per cent in bad order as of August 1, according to the semi-monthly statement of the car service division of the American Railway Association. The report stated that previous figures were used by six roads. By classes of equipment the report showed the following as to the number of bad order cars: Box, 154,981, or 15 per cent, as against 15.6 per cent on August 1; refrigerator, 8,624, or 15 per cent, as against 15 per cent on August 1; gondola, 145,011, or 15.2 per cent, as against 15.6 per cent on August 1; stock, 10,648, or 13.2 per cent, as against 13.9 per cent on August 1; flat, 12,670, or 13.4 per cent, as against 13.8 per cent on August 1. The figures reflect an improvement in the condition of freight cars on August 15 over August 1 when the shopmen's strike had been in effect one month.

ASSOCIATIONS

FEED DISTRIBUTORS TO MEET

The United States Feed Distributors Association will meet at the Hotel Sherman, Chicago, September 27 and 28. The meeting is called primarily for a discussion of proposed amendments of the Feed Trade Rules, before the meeting at New Orleans on October 2-4, at which time any changes desired will be presented for adoption. This will be an important meeting and reports, bearing upon the feed rules, from all the terminal markets will be presented.

FEED DEALERS INVITED TO NEW ORLEANS

The twenty-sixth annual convention of the Grain Dealers National Association will be held at New Orleans, La., on October 2, 3 and 4.

In 1920, when the organization held its twenty-fourth annual meeting at Minneapolis, the policy was adopted of devoting a part of the three days' convention to group meetings of feed dealers, country shippers and terminal market dealers. This policy was continued at Chicago in 1921 and at New Orleans this year there will be several group meetings. One of these will be devoted to the feed dealers, another to the chief grain inspectors and a third to the scale men's association.

A big meeting of the feed men is expected. The Grain Dealers National Association has within the last year affiliated the Eastern Federation of Feed Merchants and the Mutual Millers and Feed Dealers Association.

A cordial invitation is extended by President Clement, of the National Association, to all feed dealers in the country to attend the annual convention at New Orleans. A big group meeting of feed dealers will be held at which meeting the present feed rules will be discussed and amendments doubtless made.

At the annual meeting in Chicago last year feed rules were adopted by the Grain Dealers National Association which organization now has a Feed Arbitration Committee. It is but natural to suppose that these new rules, after a year's operation, have developed some weaknesses. A number of amendments have been proposed to the new rules and these amendments will be discussed in the group meeting at New Orleans. After the feed men decide upon what changes to make, the amended rules will be submitted to the main convention for adoption.

President Clement urgently desires to have the largest possible attendance of feed dealers at New Orleans so that any changes that are made will be the result of a full and complete discussion by a representative body of feed dealers.

Every feed dealer in the country, therefore, is cordially invited to attend the New Orleans convention and to share in the wonderful program of entertainment that will be provided by the local grain and feed interests.

NEW YORK DEALERS MEET

The annual meeting of the New York State Hay & Grain Dealers Association was held in Syracuse, N. Y., August 24 and 25. President Warren Dean of Auburn introduced Rev. Kenneth Brown for the invocation and W. A. Dyer, president of the Syracuse Chamber of Commerce, who gave the Address of Welcome. H. A. Bascomb of Boston responded for the dealers. C. M. Adams of Weedsport, read the memorial address.

President Dean read the report of the Board of Directors, in which he briefly reviewed conditions in the trade, and then outlined the activities of the year, in part as follows:

Your Board of Directors has held three meetings since our last convention in Syracuse on August 18 and 19, 1921. The first in Auburn soon following the convention, the second on June 7, and the third in this hotel last evening. At these meetings the Association's interests have been carefully considered and the necessary decisions between conventions have been arrived at. Your Board of Directors has handled the work in harmony with the officials and committees of the National Hay Association and several distinct accomplishments in the interest of the hay and grain men have been realized through our efforts.

On May 25 your president accepted the invitation of the New York State Departments to attend a conference at their offices in New York City on the subject "Hay Marketing in New York City." At this meeting the United States Bureau of Markets and Crop Estimates explained some of its plans regarding Federal grades.

Your president feels that our Association is distinctly honored in the presence of Mr. A. W. Wheeler, in charge of the Department of Hay, Feed and Seed Division, and Mr. H. B. McGuire of the Department of Agriculture at Washington. This is the first visit that the Department has made to any public gathering with a demonstration of proposed Federal grading.

In considering the greatest practical good to be accomplished by our Association, and in consultation with the Board of Directors, I am pleased to recommend for the adoption of this convention the following amendment to our by-laws:

That the Board of Directors be authorized to appoint inspectors whose duty it shall be to render decisions in conformity with the grades and trade rules of this Association wherever in their judgment inspection service is necessary and practicable; and that this inspection service shall be under the supervision of the president and the Board of Directors.

The Board of Directors recommend to the incoming officers that they arrange conferences with the representatives of the terminal markets in the East to bring about a conformity in grading rules.

D. S. Sims, traffic manager of the Association, reported on the work that had been accomplished in lowering freight rates. Wayne Dinsmore, secretary of the Horse Association of America, followed, and made a distinct impression on the dealers in his exposition of the importance of the horse in their business affairs. J. W. A. Gordon of New York City, presented some interesting grain and hay statistics.

The day's program ended with a banquet at the Onondaga Hotel at which G. C. Woodruff of New York, spoke on the topic: "The Railroads and the Public."

The second day was largely devoted to a discussion of the tentative Federal hay grades, which appear on another page of this issue.

S. L. Stowings, president of the New York State Federation of Farm Bureaus, stated that the honest and conscientious grain or hay dealers need fear nothing from the co-operative movement which is in its infancy, but could learn much from it.

The following officers were elected: President, Jay B. Bradley, Interlaken; vice-president, E. A. Dillingham, New York. Directors Warren H. Dean of Auburn and O. D. Hewitt of Locke. D. Clifford Jones was reappointed secretary-treasurer. After the new officers were installed the meeting adjourned.

MICHIGAN DEALERS MEET

About 100 dealers and guests registered at the annual meeting of the Michigan Hay & Grain Association which was held at Flint on August 22. The business was concluded in one snappy session held in the afternoon, the morning being spent in a trip through the Buick Automobile plant.

F. A. Aldrich, secretary of the Dort Motor Car Company, gave the address of welcome, and R. S. Bishop of Almont responded for the dealers.

PRESIDENT NORTHWAY'S ADDRESS

President Harry Northway then gave the report of the Board of Directors, as follows:

As we meet today in this our twenty-first annual convention it becomes my duty and privilege to present to you the report of the Board of Directors.

Directly after the close of the annual meeting in Detroit a year ago, a meeting of the directors was called, and I was instructed to confer with T. J. Hubbard relative to making arrangements with him to act as secretary for this Association for the ensuing year. Arrangements were made with Mr. Hubbard and we believe it was a very good move, as Mr. Hubbard is familiar with this work, and knows what the members desire in their bulletins.

The secretary was instructed to send check to the Grain Dealers National Association for $75 for affiliated membership dues.

It was ordered that a county chairman be appointed in each county for the purpose of enlarging the membership and creating new interest in the Association.

The next Board of Directors' meeting was held in Saginaw on November 15, with all directors present except Wm. Francis, at which time we went on record as asking the National Hay Association to institute vigorous action to secure an early reduction in freight rates. We also advised the New York State Association that we were backing up the National and asked them to take similar action, as then was the time to act if anything was to be accomplished.

In September prior to this directors' meeting, your officers and some of the directors and members met in Chicago with the National Hay Association for a hearing before the Central Freight Association, seeking relief from the excessive freight rates. Later F. L. Young was instructed to go to Washington to represent the Michigan Hay & Grain Association at the freight reduction hearing before the I. C. C. Through the efforts of the several associations we were granted temporary relief on January 1, 1922, of a reduction of 10 per cent, which was made permanent July 1, 1922.

We Michigan shippers are still handicapped on account of the high freight rates, and it appears that the only hope for the survival of the Michigan shipper and producer is further rate reductions. We as individual shippers are powerless to obtain any relief, but grouped together as an association co-operating with the National and other state associations, we may be able to get further reductions; if we do not we might as well turn our efforts to some other business.

There appears to be abundant crop of hay all over the U. S. and Canada and with the limited demand for the same it does not warrant owning a great deal of hay, no matter if the price is considered reasonable, as the outlet is small; and with the present high freight rates it has localized the hay business. When it costs more to ship a ton of hay than the farmer gets for growing, harvesting, baling and drawing it to market, together with the dealer's expense of loading and marketing it and the reasonable margin of profit to which he is entitled, it still makes it expensive for the buyer and feeder; and in these strenuous times he is going to feed hay that is grown nearer to his market if the quality is not quite as good, as it is the price he is looking at now-a-days.

A county organization was perfected among members of our Association to increase our membership, as we need the help of every hay shipper and elevator man in the state to carry on the work for which we are organized.

A mid-winter meeting was held in Saginaw on January 20. It was an informal affair, but was very instructive and was well attended. We have endeavored to give the members this year information of interest through our bulletins, and our secretary has been ready at all times to give members information regarding credits, rates, routes or anything desired along the lines of hay and grain information to the best of his ability.

Our secretary received notice from Mr. Wallace, Secretary of Agriculture, outlining several proposed changes in the grading of wheat. He immediately took this matter up with the officers and directors and wired Secretary Wallace a protest, as did every other grain organization, requesting a hearing be granted before these changes were put into effect. A hearing was granted and the directors designated Thos. Swift, of the Swift Grain Company, Detroit, to represent us, which he did very ably at the meeting in Chicago on April 10. A large delegation was present at the hearing, which submitted convincing evidence that the changing of the grades would be of no benefit to the producer or country elevator and that the present grades had been worked out by competent experts after years of careful study and were now understood by the elevator man and farmer and were about as satisfactory as they could be. As a result no change was made affecting Michigan wheat, but it goes to show that we must be ever on the lookout for the presentation of legislative bills in both National as well as state bodies, which in any way affect the business of our members.

Following the address of President Northway and on his recommendation, Article 14, Section 2 of the By-laws was changed to provide for a committee of three as an Arbitration Committee to hear all complaints and disputes of members and that each litigant would be requested to deposit a fee of $10, with a refund of $5 to the one to whom the award of the committee is made. Also in case the litigant asks for a rehearing he must deposit a fee of $15, on which no refund will be made. These amendments were duly carried.

The president appointed a Nominating Committee consisting of C. R. Huston of Detroit, Mr. Meyer of Jackson, Frank L. Young of Lansing; and an Auditing Committee composed of S. O. Downer of Birch Run, R. S. Bishop of Almont, and H. R. White of Scotts.

SECRETARY HUBBARD'S REPORT

Secretary T. J. Hubbard read his report as follows:

While we were not able to fully carry out the plans in detail which we made at the beginning of last season and send you a monthly bulletin, we did mail you six bulletins during the year. We hope to be able to get one out this season about the 15th of each month, outlining the general conditions as they exist on grain and hay in the different markets reached by Michigan shippers of these commodities. We fully realize that with the large crops of hay and grain raised this year in all producing states, competition is going to be keen in all of the markets which we will have to use for the disposal of our products. With our members still handicapped by arbitrary freight rates to eastern and southern markets, it will be more necessary than ever before to see that all purchases of grain and hay from the producer are made at prices which will permit of a reasonable margin of profit on the turnover.

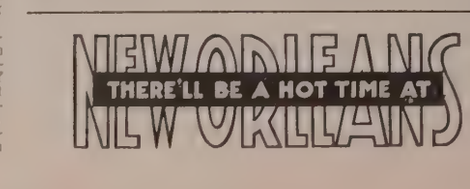
Last season there was only a very small amount of hay shipped out of Michigan prior to February 1, for the reason that we could not buy it from the farmer at a price which would permit of our meeting competition from Ohio, Indiana and New York shippers in eastern and southeastern markets. From information which has come to me during the past two weeks, I believe that our farmers this year appreciate the situation that confronts us and are going to show a willingness to accept prices for their hay which will permit of a uniform distribution of the crop over a 10 months' period instead of one of five.

On grain I think that we should have general discussion here today as to prices which should be paid the producer each day on a basis of card bids, for wheat, rye, oats and barley. In the central part of the state, around Alma, Ithaca and Breckenridge, it is my understanding that they are buying their rye and wheat at 8 cents per bushel under the daily card bids, which elevator operators in that section consider a fair and reasonable margin.

Freight Rates

This is one subject that has given us all more worry in connection with our business during the past three years than any other. I am glad to be able to report, however, that in working with the National hay and grain associations we were able to obtain a slight relief in the form of a 10 per cent reduction in grain and hay rates, both interstate and intrastate, effective January 1, last. This with the abolition of the 3 per cent war tax on freight charges, effective on the same date, was of material help to our shippers in Michigan.

In addition to this your Association participated in a hearing which was opened before the Public Utilities Commission of Michigan and a representative of the I. C. C. at Lansing on April 25 last, on a petition filed by the Michigan Industrial Traffic League, asking that the zoning system of ascertaining freight rates between points within the boundaries of the state and from points within the state to points in what is



known as the C. F. A. territory, be abolished. In that portion of the petition covering interstate rates, we asked that what are now known as Zone R rates, that is, rates named from points in southern Michigan lying south of the main line of the Michigan Central Railroad, be made effective from points located in Zones B, C and D. This would include all that portion of the lower peninsular lying south of a line drawn east and west through Gladwin and Bad Axe. If the relief requested be granted, which we hope it will be within the next four months, it will restore to our Michigan shippers of farm products the trade from the markets in Southeastern States which they lost in 1919 when the zoning system was put into effect by Michigan railroads. It will also eliminate from western and northern Michigan markets the competition of Indiana and Ohio shippers of hay, which we have had to contend with the past two years. It is my understanding, from a letter which I recently received from E. C. Ewing of Grand Rapids, who had charge of presenting the evidence covering the various complaints filed at the hearing, that the matter will come up before the Commerce Commission for a review of the evidence presented some time the early part of October. I will keep you posted of further developments through the bulletins.

We also, as the result of a systematic campaign started about the first of the year, succeeded in forcing the Pere Marquette Railroad to cancel, effective April 15, the 6 cent per hundredweight arbitrary rate on hay and 5 cent arbitrary rate on grain which they have been charging on shipments moving out of the Thumb territory to markets of Southeastern States during the past year. This in my opinion was one of the best things we accomplished last year for our members, as it will save them on their shipments many times what they pay our Association in annual dues.

Actual Weights on Hay Tags

As no doubt most of you are aware, we have had a law in effect in Michigan since 1898 which makes it compulsory for a baler, weighing bales of hay at the time they are removed from the press, to mark on the weight tag placed under one of the wires the actual weight of that bale at that time. With the first bulletin sent to our members after this convention I am going to enclose a copy of this law for your files; and if any of you want additional copies to give out to the balers in your territory, in your effort to eliminate the "give and take system" of marking weights on tags, I will gladly mail them to you on request. I also desire to recommend at this time that our members adopt the use of wooden weight tags on bales of hay in place of paper. Mice will destroy the paper tags on bales while in warehouses, especially during the winter months. The Clark Manufacturing Company of Adrian are making very reasonable prices on basswood tags put up in bags in lots of 5 to 100 thousands, and I would suggest that you give them a trial order.

Testing Scales for Grain

With Bulletin No. 6 I enclosed an extract from a circular issued by the Department of Agriculture at Washington with regard to using the proper kind of a hopper tester in buying grain. If you are now using anything but a standard 1 quart tester and filling it by any other method than that outlined in the circular, it will be money in your pocket to buy a new tester of standard make at once and follow the directions given as to filling and stroking before taking a test weight. If any of you have had trouble on shipments of wheat and rye not showing the weight test at destination which you thought they should, your trouble may be in the testing scale which you have been using at your elevator.

Membership and Dues

When I took over the secretarial work of the Association, about a year ago, we had a membership of 163 and there was due the Association for dues for the fiscal year, and one to three years previous, a total of $1,561. During the past 12 months we have collected in on this amount $931.25; and 21 members owing the Association a total of $434 for dues have been suspended under terms of the By-laws by your Board of Directors; 14 members resigned and 10 have gone out of business. We have taken in during the past year 23 new members and now have an active list of 128. Of this number 11 are still owing the Association a total of $126 for back dues, 5 for one year, 5 for two years and 1 for three years. If I do not succeed in getting these accounts paid by October 1 they will be referred to the Board of Directors. Our annual dues of $7 per member are mighty small in amount when you stop to consider what you receive in return for it. You not only get all the benefits that our Association offers, but $1 of every $7 which you pay us goes to pay for an affiliated membership in the Grain Dealers National Association if you are not already a direct member of that organization, and entitles you to a copy of *Who is Who in the Grain Trade*, besides arbitration of differences and other benefits of the national organization. With the bulletin which will be mailed you in September will be enclosed a statement showing the amount you are owing the Association. Don't pigeonhole this statement when you receive it, as some have done in the past, but have your bookkeeper write out a check for the amount due the Association and mail it to me at once. To carry on the work of the Association we must have sufficient funds to pay our bills for printing, postage and other necessary expenses. If the 10 men who are elected as officers and directors each year are willing to give their time and talent gratis to the Association, the rest of the members should show their appreciation by a prompt remittance covering the annual dues of $7.

Rudolph Raabe, president of the National Hay Association spoke briefly, signifying his pleasure at being present and urging care in buying hay this year as the large crops and high freight rates are bound to make difficulties.

W. I. Biles was to have led a discussion on "Buying Grain on Its Merits," but in his absence F. H. Sturgis of Flint led the discussion and there was a lively response. There was a general agreement that the only safe way is to buy grain on grade, but that it is far from the general practice. It was also generally agreed that the dealer could not get out whole with less than an 8-cent margin.

R. H. Pettit of the Michigan Agricultural College gave an instruction talk on the Hessian fly and the fly-free dates for planting. His talk also included a description of the means of ridding elevators and mills of the Mediterranean moth and weevil. Heat is the best means.

H. R. White of the Auditing Committee reported a balance in the treasury of $153.30. The Nominating Committee made a report which was accepted and the following officers were declared elected: President, A. L. Riedel of Saginaw; first vice-president, R. S. Bishop of Almont; second vice-president, Mr. Miller of Adrian. Directors: S. O. Downey of Saginaw, H. R. White of Scotts, and Frank E. McGunegle of Snover.

Frank Young of Lansing gave a pessimistic picture of the future of the hay business, and incidentally of farming as hay forms an important part in the crop rotation, unless freight rates are reduced to a point where hay can find its natural channels for outlet. At present these channels are effectually blocked.

An invitation was extended from the Toledo Produce Exchange to hold the next annual meeting in that city. The meeting terminated with an excellent banquet in the evening at which the principal speaker was the Rev. Mr. Rice of Detroit. The convention was well balanced and was enjoyed by all who attended.

RECEIPTS AND SHIPMENTS

Following are the receipts and shipments of grain, etc., at the leading terminal markets in the United States for August:

BALTIMORE—Reported by Jas. B. Hessong, secretary of the Chamber of Commerce:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	6,354,085	4,674,575	4,894,955	3,437,795
Corn, bus....	11,598,883	138,026	983,088	249,095
Oats, bus....	547,461	409,190	20,016	20
Barley, bus..	24,712	78,801	.....	44,924
Rye, bus.....	2,375,183	1,528,056	2,373,462	432,693
Malt, bus...	40,028	2,149	87,596	.....
Buckwheat, bus.	12	.....	.....	.....
Straw, tons...	236	98	.....	.....
Hay, tons....	1,900	1,506	.....	.....
Flour, bbls...	151,981	199,948	44,390	112,686

CAIRO—Reported by M. C. Culp, chief grain inspector and weighmaster of the Board of Trade:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus...	249,481	25,943	137,261	27,805
Corn, bus....	401,670	48,048	365,649	39,660
Oats, bus....	2,022,039	1,100,685	1,750,146	1,003,827
Rye, bus.....	.....	3,394	.....	.....
Chop, lbs....	.....	.....	27,000	.....

CHICAGO—Reported by John R. Mauff, Secretary of the Board of Trade:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	16,574,000	13,370,000	18,390,000	18,390,000
Corn, bus....	10,159,000	16,810,000	10,854,000	13,295,000
Oats, bus....	10,533,000	16,722,000	7,709,000	5,898,000
Barley, bus..	1,205,000	790,000	316,000	426,000
Rye, bus.....	1,068,000	980,000	1,378,000	1,476,000
Timothy Seed, lbs.....	8,967,000	10,849,000	2,963,000	5,228,000
Clover Seed, lbs.	997,000	365,000	240,000	528,000
Other Grass Seed, lbs...	3,738,000	3,051,000	496,000	1,051,000
Flax Seed, bus.	14,000	132,000	1,000	.....
Hay, tons....	12,262	10,817	379	803
Flour, bbls...	1,323,000	1,018,000	1,195,000	803,000

CINCINNATI—Reported by D. J. Schuh, executive-secretary of the Cincinnati Grain & Hay Exchange:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	341,000	281,400	256,800	312,000
Corn, bus....	468,000	444,000	134,400	127,200
Oats, bus....	496,000	666,000	194,000	476,000
Barley, bus...	6,500	.....	.....	.....
Rye, bus.....	61,200	57,600	30,000	22,800
Hay, tons....	5,400	7,150	.....	.....

CLEVELAND—Reported by F. H. Baer, traffic commissioner of the Chamber of Commerce:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	141,962	224,465	10,265	75,780
Corn, bus....	191,794	228,857	84,758	157,857
Oats, bus....	193,256	388,685	55,994	187,356
Barley, bus...	2,752	2,501	1,200	1,375
Rye, bus.....	794	4,603	.....	1,700
Hay, tons....	1,143	858	22	.....

DULUTH—Reported by Chas. F. MacDonald, secretary of the Board of Trade:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus...	3,225,599	6,791,790	1,793,663	4,245,525
Corn, bus....	485,290	195,792	1,057,776	94,629
Oats, bus....	194,651	810,548	459,389	422,683
Barley, bus...	632,087	1,402,717	385,849	1,000,525
Rye, bus.....	10,228,347	2,955,417	8,615,982	1,684,540
Flax Seed, bus.	54,183	280,005	82,385	246,050
Flour, bbls...	530,775	776,950	761,360	856,630

FORT WILLIAM, ONT.—Reported by E. A. Ursell, statistician of the Board of Grain Commissioners:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	3,680,665	3,235,616	7,681,697	5,754,114
Corn, bus....	3,097	2,995	3,097	70,466
Oats, bus....	834,238	4,294,305	1,998,889	6,443,524
Barley, bus...	468,698	815,839	650,410	1,056,857
Rye, bus.....	1,382,242	267,857	924,213	24,223
Flax Seed, bus.....	72,005	200,077	155,436	455,422
Mixed Grain, lbs.	1,764,410	2,219,165	2,015,070	1,265,125

LOS ANGELES—Reported by M. D. Thiebaud, Secretary of the Grain Exchange:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, carloads	349	279	.....	.....
Corn, carloads	187	87	.....	.....
Oats, carloads	23	16	.....	.....
Barley, carload	181	135	.....	.....
Flour, carloads	143	134	.....	.....

INDIANAPOLIS—Reported by Wm. H. Howard, Secretary of the Board of Trade:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	791,000	522,600	282,000	418,600
Corn, bus....	386,000	1,692,600	1,909,000	1,058,400
Oats, bus....	1,542,000	2,468,000	1,212,000	2,248,000
Rye, bus.....	190,000	105,000	186,000	99,400
Flour, bbls...	48,951	35,127	.....	.....

KANSAS CITY—Reported by E. D. Bigelow, secretary of the Board of Trade:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	11,635,650	16,721,100	10,334,250	10,993,050
Corn, bus....	901,250	900,000	1,292,500	1,518,750
Oats, bus....	664,700	1,839,400	288,000	202,500
Barley, bus..	93,000	231,000	41,600	83,200
Rye, bus.....	62,700	62,700	23,100	42,000
Kaffir Corn, bus.	83,600	292,600	102,000	238,000
Hay, tons....	21,624	14,748	3,840	1,584
Flour, bbls...	123,175	118,950	552,500	572,850

MILWAUKEE—Reported by H. A. Plumb, secretary of the Chamber of Commerce:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	510,420	3,251,830	441,555	3,265,280
Corn, bus....	897,045	3,823,375	684,305	2,560,563
Oats, bus....	1,678,140	4,090,416	1,180,886	2,271,870
Barley, bus...	811,700	1,403,805	308,152	266,810
Rye, bus.....	262,630	512,910	239,487	437,766
Timothy Seed, lbs.	144,238	1,359,647	281,035	109,160
Clover Seed, lbs.	197,785	564,325	575,951	726,166
Flax Seed, lbs.	7,190	256,686	21,817	10,302
Feed, tons...	10,865	7,330	15,740	25,341
Hay, tons....	961	960	1,344	954
Flour, bbls...	286,280	144,820	64,390	85,950

MINNEAPOLIS—Reported by G. W. Maschke, statistician of the Chamber of Commerce:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	11,222,670	15,119,530	4,974,080	5,705,590
Corn, bus....	455,360	530,070	420,880	317,840
Oats, bus....	4,155,060	7,277,690	3,073,220	1,810,370
Barley, bus...	1,224,130	2,170,640	1,022,570	2,072,610
Rye, bus.....	1,744,190	766,770	1,337,290	491,100
Flax Seed, bus.	317,360	316,950	69,530	203,270
Hay, tons....	73,648	88,626	1,492,082	1,678,924
Flour, bbls...	1,947	2,029	82	94

NEW ORLEANS—Reported by G. S. Colby, chief grain inspector and weighmaster of the Board of Trade, Ltd.:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	.....	.....	6,269,348	9,645,896
Corn, bus....	.....	.....	1,085,976	512,384
Oats, bus....	.....	.....	46,950	25,040

NEW YORK—Reported by H. Heinzer, statistician of the Produce Exchange:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	7,602,000	3,448,867	6,301,000	3,272,000
Corn, bus....	3,109,200	456,157	2,517,000	591,000
Oats, bus....	2,157,000	1,304,000	1,719,000	239,000
Barley, bus..	479,600	921,609	558,000	714,000
Rye, bus.....	1,265,600	339,300	1,322,000	148,000
Flax Seed, bus.	737,000	346,000	.....	.....
Hay, tons...	8,431	9,521	.....	7,290
Flour, bbls...	688,400	1,094,755	361,000	931,000

OMAHA—Reported by L. P. Manchester, secretary of the Grain Exchange:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	5,082,000	5,912,400	4,131,400	6,536,400
Corn, bus....	2,703,400	1,908,200	2,104,200	2,020,200
Oats, bus....	1,258,000	1,356,000	1,322,000	650,000
Barley, bus..	52,800	241,200	38,400	135,000
Rye, bus.....	263,200	364,100	165,200	144,100

PEORIA—Reported by John R. Lofgren, secretary of the Board of Trade:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	1,310,450	708,420	1,381,150	328,450
Corn, bus....	1,730,550	1,502,150	1,295,395	531,100
Oats, bus....	1,379,200	1,685,140	1,074,600	604,750
Barley, bus...	28,800	54,600	21,000	54,600
Rye, bus.....	32,200	9,600	19,200	13,200
Mill Feed, tons	15,790	3,440	18,020	13,900
Hay, tons....	5,750	690	340	240
Flour, bbls...	199,700	239,800	209,000	230,000

PHILADELPHIA—Reported by S. S. Daniels, statistician of the Commercial Exchange:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	5,443,602	2,400,376	4,250,265	1,286,621
Corn, bus....	476,295	615,666	652,160	488,571
Oats, bus....	344,563	341,502	29,944	.....
Barley, bus...	4,237	1,195	.....	.....
Rye, bus.....	162,909	37,036	268,204	19,421
Flour, bbls...	318,195	335,139	62,871	98,494

ST. LOUIS—Reported by Eugene Smith, secretary of the Merchants' Exchange:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	7,058,479	7,160,672	6,379,160	5,382,260
Corn, bus....	2,568,800	2,394,800	1,771,790	1,924,130
Oats, bus....	2,580,000	2,519,000	2,155,075	1,994,365
Barley, bus..	59,200	76,922	18,060	21,430
Rye, bus.....	49,824	57,675	40,370	7,860
Kaffir Corn, bus.	12,000	103,000	13,400	67,020
Hay, tons...	11,285	9,952	3,545	3,505
Flour, bbls....	428,280	720,640	570,010	813,410

SAN FRANCISCO—Reported by A. C. Bunker, chief inspector of the Chamber of Commerce:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, tons.	7,980	2,887	.....	.....
Corn, tons...	2,686	446	.....	.....
Oats, tons...	1,073	484	.....	.....
Barley, tons.	51,716	119,086	.....	.....
Bean, sacks..	31,928	31,443	.....	.....
Hay, tons....	7,722	9,935	.....	.....

TOLEDO—Reported by A. Gassaway, secretary of the Produce Exchange:

	Receipts		Shipments	
	1922	1921	1922	1921
Wheat, bus..	974,400	1,066,400	310,165	190,745
Corn, bus....	231,250	230,000	19,835	55,195
Oats, bus....	403,768	2,122,200	68,215	563,135
Barley, bus..	2,400	3,600	.....	.....
Rye, bus.....	65,800	250,000	35,120	208,930
Timothy Seed, bags	272	1,338	1,751	4,005
Clover Seed, bags	591	584	667	331
Alsike, bags.	960	2,261	427	985

ELEVATOR AND GRAIN NEWS

ILLINOIS

J. C. Boyer has sold his elevator and lumber yard at Wapella, Ill., to D. S. McGaughey, of Mt. Zion.

A Fairbanks 10-ton Auto Truck Scale has been installed at Donnellson, Ill., for the Farmers Equity Company.

The Big Four Elevator & Milling Company is interested in the erection of a new elevator at Mattoon, Ill.

Elmer Carver is succeeded as manager of the St. David Farmers Elevator, St. David, Ill., by George Parkin.

The plant of the Farmers Elevator Company at Muncie, Ill., has been purchased by A. E. Betts & Son of Forest, Ind.

The capital stock of the Agnew Farmers Elevator Company at Agnew, Ill., has been increased from $10,000 to $20,000.

John T. McCoy of Streator, Ill., has purchased the grain elevator and coal business of B. F. Colehower at Long Point, Ill.

A new 10,000-bushel elevator has been put into operation at Copes Siding (Green Valley p. o.), Ill., by the Farmers Grain & Coal Company.

G. A. Cope who recently bought the elevator at Tonica, Ill., has sold it to William A. King. The latter owns both storage houses in Tonica.

The Anderson Grain & Coal Company and the Black Diamond Fuel Company, of Galesburg, Ill., have been purchased by B. E. Hewitt, who will conduct both businesses.

The Walter Wheatly Elevator at Humboldt, Ill., has been purchased by George E. Wyeth of Charleston, Ill. It is now being operated by Arthur Wyether who has been in the elevator business at Lebanon, Ind.

The elevators of the Glasford-Banner Farmers Elevator Company at Glasford, McKay's Landing, and Bell's Landing, Ill., have been purchased by the Peoria Grain & Barging Company. The company will erect a modern elevator at Bell's Landing.

The E. & R. Elevator at Chicago, with capacity of 500,000 bushels, is now being operated by the D. Rothschild Company. The house was formerly the property of the American Malting Company. The Rothschild company will operate as a storage and transfer house, and will make use of the elevator for the expansion of its barley business.

INDIANA

A new 15,000-bushel elevator is being erected at Hedrick, Ind. It will be electrically operated.

J. G. Bauer is succeeded as manager of the Farmers Co-operative Company at Westville, Ind., by F. W. Schwinkendorf.

The elevator located at Enos (Morocco p. o.), Ind., has been purchased from Mark Templeton by John Colbourne and W. C. Atkinson.

The Farmers Supply Company at Teegarden and Tyner, Ind., is succeeded in business by C. W. E. Summers, who was formerly manager.

The property of the defunct Farmers Union Elevator Company at Sullivan, Ind., has been purchased by Louise Meier. The plant cost $1,700.

A new iron smokestack has replaced the old one which blew down on the mill of the Farmers Co-operative Elevator Company at Seymour, Ind.

The Richland Grain Company of Earl Park has leased the elevator at Gravel Hill (p. o. Fowler), Ind., from the Stuart Estate. The plant will be improved.

The elevator at Claypool, Ind., of the Kinsey Bros., has been purchased by the Mayer Grain Company of South Whitley. The company will enlarge and improve the house.

The Pennsylvania Elevator at Hartford City, Ind., has been reopened by the Cotterman Grain & Milling Company. The Cotterman company purchased it a few months ago.

The elevator at Knightstown, Ind., has been purchased by O. C. Shirley of Lebanon from W. H. Green. The elevator was originally owned by the Hungate Wholesale Company.

The Igleheart Bros., of Evansville, Ind., have contracted with the Polk-Genung-Polk Company for the erection of a 300,000-bushel addition to their elevator, making total capacity at Evansville of 500,000 bushels. The same contracting company has been awarded the contract for a 10,000-bushel house, concrete construction, to replace the one at Martin's Switch, Ind., which burned.

A modern grain elevator is being erected at Foraker (Wakarusa p. o.), Ind., for Shelley & Weaver. The Barnard & Leas Manufacturing Company is furnishing the equipment.

Glen Allen is now manager of the elevator near Galveston, Ind. He was formerly manager of the Sims Co-operative Grain Company, Sims, Ind., and is succeeded there by George Routh.

EASTERN

The grain, feed and flour warehouse of L. Kellum & Co., at Baltimore, Md., has been sold by William H. Kellum.

A grain elevator is under course of construction at Newville, Pa., which will be operated under lease by Nickles & Heiser.

The Foreman Grain House at Centre Hall, Pa., has been purchased by William McClenahan who paid $4,500 for the house.

The Dailey Bros. are interested in the erection of a 40,000-bushel elevator at Phelps, N. Y. The company has its headquarters at Rochester.

C. B. Fox, H. B. Watson and C. A. McQuay have incorporated the C. B. Fox Grain Company at Manhattan, N. Y. The firm is capitalized at $100,000.

The Hermitage Elevator Company has taken out a Delaware charter, capitalized at $200,000. F. R. Bogart, M. A. Bruce and C. H. Blaske are interested.

A storage house with capacity of 350,000 bushels flax seed is to be erected at Newark, N. J., for the Pittsburgh Plate Glass Company. James Stewart & Co. have the contract.

B. Goodman & Sons of Bayonne, N. J., have purchased the grain and feed warehouse of Charles C. Dempsey at Westville, N. J. Mr. Dempsey conducted the business for 31 years and was a member of the Philadelphia Commercial Exchange.

The Pennsylvania Railroad Company's elevator at Erie, Pa., has been leased by the Export Grain Corporation. It was built several years ago by Folwell-Ahlskog Company and has capacity of 125,000 bushels with a 25,000-bushel marine tower.

The Moffatt Flour Mills and the Churchill Grain & Seed Company of Buffalo, N. Y., have consolidated and will operate as the Moffatt Milling Company, occupying the Churchill seed and grain house. New grain cleaning and other machinery is being installed.

Charles W. Austin has been appointed first superintendent of the new Gowanus Bay Elevator at Brooklyn, N. Y. He will have offices in the Produce Exchange Building, New York City. Mr. Austin was at one time interested in the grain salvage business with C. E. Fox as the Chicago Grain & Salvage Company. He built and operated the Rockwell Elevator at one time.

The Pennsylvania Railroad has placed the contracts for the erection of a large floating elevator and three additional steel grain barges. It will supplement the work of the Girard Point Elevator. The elevator will have loading capacity of 13,000 bushels per hour; this will give the elevator loading capacity from floating equipment of 20,500 bushels hourly. Each of the new barges will have capacity of 40,000 bushels.

CANADA

C. S. Costin is now grain buyer for the U. G. G. at Irma, Alta.

A new elevator is being erected at Foam Lake, Sask., by the Victoria Elevator Company.

Cardinal and Trucotte, hay and grain merchants, Montreal, Que., have recently been registered.

Leblanc & LaFrance, hay and grain merchants, Montreal, Que., have recently been registered.

The Ogilvie Elevator at Strassbourg, Sask., is to be managed during the coming year by Peter Brown of Govan.

The Terwilliger Grain Company is interested in the erection of a 30,000-bushel elevator at Leslieville, Alta.

The Canadian Pacific Railway Company has leased the last of its terminal elevators, namely Elevator "D" at the Head of the Lakes, on a long term lease to the Consolidated Elevator Company interests. D. C. Coleman, vice-president, of the Western Lines of the Canadian Pacific Railway recently stated.

J. McRea of Regina will operate the Saskatchewan Co-operative Elevator at Strassbourg, Sask., this season.

The Alberta Pacific Grain Company, Ltd.'s elevator at Mundare, Alta., is being wrecked. A new 40,000-bushel house will be built at once on the same site.

A 40,000-bushel elevator has been completed at Stony Plain, Man., for the Federal Grain Company, Ltd., of Winnipeg, which will be in shape to handle this year's crop.

Two elevators at Ryley, have been purchased by the Home Grain Company of Winnipeg, from the Alberta Pacific Grain Company. B. F. Ewers is in charge of the Ryley house.

The Fegles-Bellow Construction Company has the contract from the Archer-Daniels Linseed Company for a 700,000-bushel elevator, concrete wharf and traveling marine tower at Fort William, Ont.

The Young Grain Company has sold its 13 country elevators to the Paterson Grain Company. They are located in southern Manitoba and will give the Paterson firm a total of 95 country elevators in the West.

The line of elevators of the Goose Lake Grain Company, Ltd., Saskatoon, Sask., has been sold by it to the Pioneer Grain Company, Ltd., of Winnipeg. The Goose Lake company will go out of business. It has been in existence for 14 years and had about 30 elevators.

Improvements are being made to the Port of Montreal, Canada, involving expenditures of $4,319,849. It includes the erection of a 2,000,000-bushel elevator on the east end of the port to be the first unit of a 10,000,000-bushel structure. This is expected to be completed by the fall of 1923. It will be fitted to receive grain from lake ships at the rate of 40,000 bushels per hour. This is an improvement that is greatly needed.

IOWA

A new elevator has been completed at Danbury, Iowa, for M. Burke.

The Farmers Elevator at Alburnett, Iowa, is being remodeled.

The Huntting Elevator Company's plant at Bonair, Iowa, has been improved.

G. C. Rector is manager of the Farmers Elevator at Adel, Iowa, succeeding George Mann.

The grain elevator of George and Rolla Jones at Fort Dodge, Iowa, has been sold by them.

William Lickel succeeded A. L. Brewster as manager of the Farmers Elevator Company at Geneva, Iowa.

Glenn Hall is succeeded as manager of the Farmers Elevator Company at Panora, Iowa, by Arthur Allen.

A Fairbanks Scale has been installed in the elevator belonging to George Potgeter at Steamboat Rock, Iowa.

A new leg, belt, and Superior D. P. Elevator Cups have been installed in the elevator of M. O. Hocum at Iowa Falls, Iowa.

Charles Bolon succeeds L. J. Shipman who recently resigned as manager of the Farmers Elevator Company at Marsh, Iowa.

The Farmers Co-operative Elevator at Wallingford, Iowa, is to be conducted under the management of George McAdams.

A new terminal elevator with handling capacity of 20 cars is to be erected at Cedar Rapids, Iowa, for the Gifford Grain Company.

R. C. Fleck is president; L. A. Fleck, secretary-treasurer of the Fleck Elevator Company of Kilduff, Iowa. Its capital stock is $10,000.

A corn sheller is to be installed and other improvements made to the house of the Farmers Elevator Company at Dixon, Iowa.

A new elevator of 30,000 bushels' capacity is to be erected at Duncombe, Iowa, for John R. Brown of the Webster City Elevator Company.

J. K. Johnson and Thomas Berhow of Kanawha, Iowa, have purchased the property of the Bowles Grain Company and will operate as the Johnson & Berhow Grain Company. Mr. Johnson will be manager. He was part owner and manager of the ele-

vator for many years being associated with A. A. Moore first and after with Bowles, Billing & Kessler. He sold his interest in the firm two years ago.

Charles Roberts and Fred Basset of Creston, Iowa, have dissolved partnership under which they have been conducting a grain and produce business there.

The elevator of the Home Lumber Company at Crawfordsville, Iowa, has been remodeled and equipped with a new leg and other modern equipment.

The Piper Grain & Milling Company has been formed at Cedar Rapids, Iowa, to conduct a grain business. They are remodeling an old warehouse for their use.

George Faber, John Jarshow, Frank Hesseldahl and others have incorporated as the Lincoln Co-operative Elevator Company at Rake, Iowa, capitalized at $10,000.

The Dunbar Grain & Stock Company has been reorganized at Dunbar, Iowa, and is operating as the Dunbar Elevator Company, with Otto Tweed manager.

The Stockdale & Maack Company of Walcott, Iowa, on September 1 were succeeded in business by the Davis Bros. & Potter, an experienced grain firm of Galesburg, Ill.

E. Croforth is now manager of the Independent Grain & Lumber Company at Lake Mills, Iowa. He was formerly at Dike where he is succeeded by L. Christiansen.

A grain and feed jobbing company has been organized at Spencer, Iowa, by Z. A. Salit and J. Klugsberg of Cedar Rapids, to operate as the Independent Marketing Company.

The Wilson-Karel Lumber Company has purchased the property of the Washington Elevator Company at Washington, Iowa. The coal business will be continued by the new owners, and plans are under way for the enlargement of the plant.

William Grettenberg has sold his elevator, grain and coal business at Pierson, Iowa, to David Marr and W. E. Young of Traer, Iowa. Messrs. Marr and Young will operate as Marr & Young and will improve the plant increasing capacity to 20,000 bushels.

THE DAKOTAS

Henry Hanft is grain buyer at the Andrews Elevator at Edmunds, N. D.

The elevator of the Selby Equity Exchange at Selby, S. D., is to be rebuilt.

The H. E. Campbell Elevator at Michigan, N. D., is to be conducted by B. E. Newhouse.

A. E. Mapes is now manager of the St. Anthony & Dakota Elevator located at Milton, N. D.

A new elevator is to be erected at Redelm, S. D., replacing the one which burned in April 1921.

Harvey Graham is now manager of the Baldwin, N. D., house of the Farmers Elevator Company.

J. B. Ratzlaff is grain buyer with the Farmers Co-operative Elevator Company of Heaton, N. D.

Roy Faught is now manager of the grain elevator at Parshall, N. D. He came from Mapleton, Minn.

A truck dump has been installed in the Drayton, N. D., elevator of the Monarch Elevator Company.

A motor drive is to be installed in the Linton, N. D., house of the Farmers Elevator Company.

The A. N. Tolen Elevator at Mohall, N. D., has been purchased by Carl N. Nelson of Starbuck, Minn.

Operations have been resumed in the Merchants Elevator at Groton, S. D., with Harold Plummer in charge.

The capital stock of the Southside Farmers Union, Inc., Dawson, N. D., has been increased $10,000.

The Farmers Elevator Company at Marvin, S. D., is to be conducted under the management of O. O. Haugen.

A grain and livestock business is to be conducted at Chester, S. D., by W. J. Morrison formerly of Sioux Falls.

Business is to be resumed in the Imperial Elevator at Calvin, N. D., which has been closed for a number of years.

C. J. Brown is manager of the grain elevator at Aneta, N. D., owned by the Quinn Shepardson company of Minneapolis.

Henry Waughland has left the Alsen Farmers Elevator at Alsen, N. D., and is now manager of the Bisbee Grain Company.

Henry Albee is succeeded as manager of the Farmers Elevator Company at Riverside, Hanson County, S. D. by M. S. Gardner.

Overhauling is being done to the elevator of the Logan Farmers Elevator Company at Logan, N. D. When the repairs have been made the Farmers Company will resume operations.

The grain elevator near Independence, N. D., which M. G. Jacobson purchased recently has been wrecked and moved to Van Hook, N. D., and rebuilt there. Mr. Jacobson will operate as the Grain Service Company.

A grain elevator is to be erected at Brookings, S. D., for the farmers of that neighborhood who are organized with R. A. Larson, secretary.

Three elevators of 30,000 bushels' capacity at Halliday, Elgin and Golden Valley, N. D., have been purchased by the I. L. Berge Elevator Company.

A new grain elevator is being erected at Wakpala, S. D. by the Liberty Grain Company of Strasburg, N. D. It will have capacity of 20,000 bushels.

J. H. Wishek, Max Wishek and W. L. Johnson have incorporated at Zeeland, N. D., as the Equity Grain Company. The company is capitalized at $25,000.

A new cement foundation has been put in under the Osborn-McMillan Elevator at Fessenden, N. D., and other improvements and overhauling made to the house.

Capitalized at $25,000, the Wessington Elevator Company has been incorporated at Wessington, S. D. C. W. Croes, T. Desserville and J. C. Pierce are interested.

E. Ingold is succeeded as manager of the Farmers Elevator Company at Halliday, N. D., by John Payne, who has been assistant manager during the year just past.

The Mapleleaf Grain Company, capitalized at $15,000, has been incorporated to operate at Mapleleaf, S. D. Frank Hellkake, O. Sandland and L. Snortland.

The Parker, S. D., interests of the Shanard Elevator Company of Bridgewater, have been sold to G. H. Howdle. J. H. Halsey will remain in charge as manager.

Articles of incorporation have been filed by John J. Wells, C. G. Wells and H. G. Niles as the Wells Grain Company of Edgeley, N. D. The firm is capitalized at $5,000.

William Hoffman has purchased the Farmers Elevator at Mantador, N. D., and has remodeled it into a modern house in connection with coal sheds and potato warehouse.

The John Hokanson & Son Elevator at Rosholt, S. D., has been purchased by J. H. Jenny who was formerly manager of the Farmers Co-operative Elevator at Dodge.

The Truax Elevator at White Lake, S. D., has been purchased by the Board of Directors of the former Farmers Elevator and will operate as the Farmers Grain Company.

The Buffalo Springs Grain Company has been incorporated at Buffalo Springs, N. D., capitalized at $5,000. Charles Kelner, M. Whelan, and W. H. Pollock are interested in the company.

The Coburn (Sheldon p. o., N. D.) Farmers Elevator has been finished and is now ready for operation. A new office has been erected, a feed mill added and a new cleaner is to be installed.

The Rickert Mill & Elevator at Sisseton, S. D., has been purchased by W. L. McPeak of Minneapolis. He is repairing the building preparatory for the installation of new and modern machinery.

A farmers company with F. P. Gehres, president; Theodore Hanson, secretary and treasurer, and M. Wold, manager, has purchased a grain elevator at Maza, N. D., which has been under the management of A. E. Mapes.

OHIO AND MICHIGAN

Capitalized at $10,000, the Mutual Grain & Feed Company has been incorporated at Jackson, Mich.

John E. Hoffman succeeds O. W. Baker as manager of the Farmers Elevator Company at Rosewood, Ohio.

Capitalized at $5,000, the Consumers Grain & Hay Company of Bellefontaine, Ohio, has been incorporated.

The Westville Grain & Livestock Company of Westville, Ohio, has increased its capital stock from $20,000 to $30,000.

The capital stock of the Cass Bean & Grain Company at Bay City, Mich., has been increased from $60,000 to $100,000.

The Martindale Grain Elevator at Rogers City (r. f. d. Rogers), Mich., is to be rebuilt. The house burned some months ago.

An elevator costing approximately $40,000 is to be erected at Flint, Mich., for J. P. Burroughs & Co. The contract has been let.

Kirby Threlkeld is succeeded as manager of the elevator of the Grove City Farmers Exchange at Grove City, Ohio, by R. C. Younce.

The recently completed house of the Farmers Co-operative Elevator Company at Oakley, Mich., is to be conducted under the management of Earl Jones.

A new elevator and warehouse at Charlevoix, Mich., operated by Chatterton & Son as the Charlevoix Elevator Company has been purchased by the Charlevoix Farmers Co-operative Association. The company's increased business necessitated the purchase.

The Breckenridge Bean & Grain Company of Breckenridge, Mich., has rented the elevator of Crawford & Co. Edward Crawford of Ithaca is manager.

The Marshall Farmers Elevator Company of Marshall, Mich., has completed a new elevator there. It will be 40x100 feet and will be electrically driven.

D. J. Hacker & Co., have purchased the elevator and equipment of the Weyer Elevator & Supply Company of Weyer (Sandusky p. o.), Ohio. They are operating it.

A site at Saginaw, Mich., has been purchased by the Saginaw Co-operative Marketing Association on which a grain elevator will be built. John W. Ure is president.

C. L. Parker and the Sneath-Cunningham Company have purchased the elevator and mill at Rawson, Ohio, formerly operated by Russell Ritter and known as the Rawson Mills.

U. G. Furnas and A. C. Brown have dissolved the St. Paris, Ohio, grain business which they have been conducting. Mr. Brown has bought out Mr. Furnas, due to the latter's ill health.

A grain and coal brokerage business is to be started at Cleveland, Ohio, by V. D. Lersch and J. C. Palmer as the Royal Coal & Grain Company. The firm will have offices in the Kirby Building.

The Prescott Elevator, Prescott, Mich., has been completed, replacing the one which burned last spring. The elevator has capacity of 18,000 bushels beans and is equipped with 40 bean picking machines.

Chatterton & Son of Lansing, Mich., have purchased the plant of the Farmers Elevator Company at Flushing, Mich., and will conduct it under the name of the Flushing Elevator Company. C. E. Laur will continue in charge temporarily.

The Bad Axe Grain Company has purchase the elevator at Sandusky, Mich., from the Gleaners and will operate it. The company also purchased an elevator at Port Austin from the Wallace Bros. George Young is manager of the Sandusky house.

A new company has been formed at Lansing, Mich., by Robert Ryon, to be known as the Ryon Grain Company. Mr. Ryon recently withdrew from Chatterton & Son where he had charge of the grain jobbing department. Mr. Ryon was president of the Michigan Hay & Grain Association for one year.

The elevator and grain business at Mansfield, Ohio, of the Federal Mill & Elevator Company, Inc., Lockport, N. Y., has been taken over by D. M. Cash who was formerly in the grain business at Decatur, Ill. The house was formerly owned by the Goemann Grain Company and has a capacity of 650,000 bushels.

MISSOURI, KANSAS AND NEBRASKA

The Cambridge, Kan., elevator has been purchased by James T. Stout.

The Culver Grain Company of Culver, Kan., has been purchased by A. Wilson.

The Farmers Elevator Company of Hordville, Neb., is repairing its elevator there.

Dr. T. T. Holt of Geuda Springs has purchased the Farmers Union's elevator at Ashton, Kan.

A new terminal elevator is to be erected at Aurora, Neb. for the T. B. Hord Grain Company.

Capitalized at $71,000, the Farmers Union Elevator Company has been incorporated at Lawrence, Neb.

The Farmers Elevator Company of Douglas, Neb., has equipped its plant with a 10-horsepower engine.

The Farmers Grain & Supply Company, which has been operating at Hildreth, Neb., has been dissolved.

The South Elevator at Benedict, Neb., has been leased by J. Higginbottom who will conduct the business.

A new grain elevator has been erected at Berea, Neb., for F. A. & E. C. Barker. It is opened for business.

The management of the grain elevator at Garden City, Mo., is now in the hands of Adelbert Leadbetter.

Capitalized at $40,000, the Imperial Co-operative Equity Exchange has been incorporated at Imperial, Neb.

The elevator of the New Era Milling Company at Doster, Kan., is being repaired and will be in operation soon.

G. E. Sanberg is succeeded as agent for the St. Anthony & Dakota Elevator Company at Wynot, Neb., by D. Boyson of Paullina, Iowa.

The contract has been let for an addition to the Elevator A of the Pittsburg Elevator Company of Pittsburg, Kan. It will be used for a mixing plant for the manufacture of the company's dairy feed.

egg mash and chicken feed. It will be 78x24 feet with reinforced concrete working floors, elevators, mixing machines and bin room.

Repairs and overhauling have been done to the Fostoria Elevator at Fostoria, Kan. H. S. Blatchley is manager.

The Shannon Elevator Company's establishment at Carleton, Neb., is to be conducted by James M. Hart of Davenport.

A new elevator is to be erected at Glasgow, Mo., for farmers in that vicinity. The contract for the house has been let.

A new coal shed and warehouse is being erected by the Potter Grain Company of Potter, Neb., near its elevator and office.

The Scotia Grain & Supply Company of Scotia, Neb., is now operating under the name of the Scotia Grain Company.

The Petit Grain Company has purchased the Davis Elevator at Santanta, Kan. Mr. Huffman of Plains is in charge.

A. L. Vaugh succeeds J. M. Freshwater as manager of the Farmers Elevator & Exchange Company at Hunnewell, Mo.

George Welsh is now manager of the Farmers Union Elevator at Ogallala, Neb., and took up his new duties on September 1.

An addition is being erected to the elevator of the Farmers Company at Solomon, Kan., which will have a capacity of 8,000 bushels.

The Nickerson Elevator at Fremont, Neb., has been reopened by The Crowell Lumber & Grain Company. R. H. Cole is in charge.

An addition is probably to be built to the elevator of the McDaniel Milling Company of Carthage, Mo., doubling the present capacity.

Two new grain storage tanks with capacity of 40,000 bushels are to be erected at Ensign, Kan., for the Dodge City Flour Mills Company.

A new steel grain bin with capacity of 1,800 bushels has been purchased by the Farmers Union Co-operative Association of Broadwater, Neb.

The Elkhart, Kan., property of the Probst Grain Company has been sold to the L. H. Pettit Grain Company, of Hutchinson. Mr. Cook is agent.

The Trans-Mississippi Elevator Company's elevator at Overton, Neb., was opened for business a short time ago. George Sinclair is operating it.

W. W. Topf is now manager of the Farmers Elevator Company at Rockford, Neb. He was in the grain business at Stromsburg, Neb., for two years.

Business has been started in the elevator at Holdrege, Neb. now owned by the Holdrege Grain Company. It was formerly occupied by W. M. Bruce.

The elevator of the Farmer's Union Elevator Company at Abdal (mail Mount Clare), Neb., is being rebuilt on a larger scale. The old elevator burned last spring.

The elevator of the Milligan Farmers Co-operative Association, at Milligan, Neb., has been leased by the B. Koehler Company, of which Frank Krisl is manager.

The 150,000-bushel Updike Elevator at Lincoln, Neb., has been purchased by the Lincoln Grain Company. G. A. Johnson will be superintendent of the house.

A half interest in the Wolfersperger Elevator at Minneapolis, Kan., has been purchased by Albert Taylor. He will operate as the Wolfersperger Elevator Company.

The Concordia Farmers Co-operative Company has been incorporated at Concordia, Mo., capitalized at $10,000. The company will do a general grain business.

Improvements are being made to the elevator of H. E. Reavis, at Battle Creek, Neb. Cast iron elevator boots, rubber belts, distributor, etc., are being installed.

Fred Cooper has purchased the elevator at Garfield, Kan., which he had operated about two years ago. The plant was the property of the Kansas Grain Company.

C. N. Bidwell is manager of the Home Elevator Company of Liberal, Kan., which recently purchased the Bolin Hall Elevator there. The company is capitalized at $12,000.

The entire plant of the Grain Belt Mills at St. Joseph, Mo., which was burned last June has been rebuilt and is again ready for operation. Two new hay storage barns are nearly finished too.

The Farmers Grain & Lumber Company of Montezuma, Kan., is to be managed by J. Thompson of Haggard. Dr. J. Smith has succeeded him as manager of the Security Elevator Company at Haggard.

A fireproof, concrete elevator, is to be erected at Jamestown, Kan., by the Lindsburg Mill & Elevator Company replacing the one which burned a short time ago. The new elevator will be completed before next summer.

The Mid-West Grain Company has leased the elevator of the Hopkins-McKibben Grain Company at Sylvia, Kan. The Hopkins-McKibben firm was recently dissolved. Mr. McKibben will continue as manager.

The Perry County Co-operative Warehouse & Elevator Association has completed a new warehouse at Perryville, Mo.

The property and business of the Koehler Grain Company at Hebron, Neb., have been purchased by the Shannon Grain Company.

MINNESOTA AND WISCONSIN

The Atlas Elevator located at Delhi, Minn., is being overhauled.

W. O. Johnson is manager of the Farmers Elevator at Lockhart, Minn.

The National Elevator at Chokio, Minn., is to be managed now by Harry Britt.

The Woodworth Elevator at Waubun, Minn., is to be conducted by Frank Janousek.

The Rippe Grain & Milling Company's house at Fairmont, Minn., is being repaired.

Repairs and overhauling are being done to the Equity Elevator at Glenville, Minn.

M. J. Kirsch is the new manager of the Bauer Elevator Company at Paynesville, Minn.

The Farmers Co-operative Elevator at Menahga, Minn., is to be conducted by A. O. Richardson.

M. J. Kirsch of Roscoe is manager of the Bauer Elevator at Northtown (r. f. d. Minneapolis), Minn.

The Traverse Elevator Company's elevator at Traverse (St. Peter p. o.), Minn., has been repaired.

The Farmers Elevator Company at Springfield, Minn., is to be operated under the management of T. D. Wendt.

The Upham Elevator at Shawano, Wis., is being operated by C. O. Eberleim manager of the Dodge Hooker Elevator.

The elevator at Wheaton, Minn., owned by the estate of the late S. C. Odenborg has been purchased by M. E. Lundquist.

The house of the Pacific Elevator Company at Franklin, Minn., has been purchased by Hugh Mullin of Green Isle.

Theodore Paal has sold his Dovray Elevator at Dovray, Minn., to Miles Tormey, who took possession September 1.

An addition is to be built to the Minneapolis, Minn., elevator of the Crown Elevator Company. It will cost $6,200.

A. R. Kenske, of Winthrop, is to be manager of the Empire Elevator Company's house at Stewart, Minn., this year.

The grain elevator at Montgomery, Minn., has been opened by L. N. Neusbaum, and will be conducted by Matt Stanek.

C. H. Ahlf is succeeded as manager of the Raymond Farmers Elevator Company at Raymond, Minn., by J. A. Schemmel.

The Pioneer Grain Corporation is rebuilding its elevator at Minneapolis, Minn., which burned last October. It is costing $50,000.

W. F. Mars is the new manager of the Farmers Elevator at Howard Lake, Minn., and has already taken up his new work.

The late Martin Turnquist is succeeded as manager of the Commander Elevator Company at Stillwater, Minn., by C. W. Dickinson.

The Nelson Company of Cambridge, Minn., has leased its elevator there to the Cambridge Produce Company. Robert J. Moody is manager.

The Crown Elevator at Olivia, Minn., is to be reopened by C. E. Johnson of Minneapolis. He is remodeling the house preparatory to reopening.

The Farmers Co-operative Elevator at St. Charles, Minn., formerly managed by J. McIntosh is to be operated under lease by E. E. Lietz and J. B. Leveille.

The Richmond (Delavan p. o.), Wis., elevator has been taken over by the Anderson Bros., and will be operated under the management of Irvin H. Sather.

E. B. Murphy is now manager of the Farmers Co-operative Elevator at Faribault, Minn. He was formerly with the E. S. Woodworth & Co., of Minneapolis.

The Metcalf & Peterson Elevator, at Porter, Minn., has been purchased by G. O. Miller. Mr. Miller owned this elevator before Metcalf & Peterson bought it.

Business is now being conducted by the Savage Elevator Company at Savage, Minn., with M. E. Stevens as manager. The company will carry a full line of grain, feed and flour.

The Holman Bros. have reopened the Osceola Elevator at Barron, Wis., and are buying rye, barley and oats for the Bartlett Frazier Co. The elevator has been closed for two years.

The Milwaukee plant of the American Malt & Grain Company has been taken over by the Rissman-Levey Salvage Company. The company is wrecking three of the elevators but will retain three of the fireproof buildings and remodel them into industrial establishments.

The office at the B. B. Anderson Elevator at Wilmot, Minn., has been torn down and replaced with a modern one, connected with the main building.

Reorganization of the Hampton (Minn.) Co-operative Elevator has taken place with F. N. Fox president; John Dickman, vice-president; Ben Gergen, secretary and V. F. Rother, treasurer.

The grain elevator of the Hewitt Grain & Provision Company at Dresser Junction, Wis., has been opened. A feed mill will be installed. The company's head offices will be at Escanaba, Mich.

Improvements have been made to the elevator of the Speltz Grain & Coal Company at Wells, Minn. All of the old grain spouts have been replaced with new ones and the engine has been put into good shape.

The elevator at the plant of the Winona Malting Company at West Red Wing, Minn., is undergoing extensive overhauling preparatory to operations this fall. The house has not been operated since the war.

The elevator of the Independent Co-operative Elevator Company at Litchfield, Minn., which burned is being rebuilt and will be ready for occupation on October 1. The machinery will be electrically driven.

To deal in grain, flour, feed, etc., the Rio Co-operative Elevator Company has been incorporated at Rio, Wis., capitalizatized at $10,000. James C. Cuff, H. S. Johnson, Peter Learum, A. L. Cowley and C. E. Higbie are interested.

Improvements are to be made to the Balaton, Minn., elevator of the Farmers Co-operative Company. The improvements will increase the capacity of the house to 40,000 bushels; a new motor will be installed and general overhauling done.

SOUTHERN AND SOUTHWESTERN

The Western Grain Company at Lawton, Okla., is to be managed by J. W. Russell.

The Hodge-Howell Elevator Company has installed a corn elevator at Harlingen, Texas.

The capital stock of the Farmers Union Exchange of Isabella, Okla., has been decreased from $50,000 to $20,000.

A 25,000-bushel elevator and flour blending plant is being erected at Huntsville, Ala., for the Matthews Bros.

John A. Meece and M. J. Gain have purchased the property of the Flavo Mill & Grain Company at Somerset, Ky.

The Scott Bros. of Stanford have purchased the elevators at Perryton and Spearman, Texas, from the Horne Grain Company.

The elevator at Cleora, Okla., recently purchased from Worl & Dow by Pitts & Wells is under the management of R. A. Armstrong.

The John Probst Grain Company has disposed of its elevator at Perryton, Texas, to the Moore Grain Company of Caldwell, Kan.

The grain elevator and business of E. M. Friend at Electra, Texas, has been purchased by John M. Clemmons of Copperas Grove, Texas.

Ferguson & Co.'s grain and coal business at Vernon, Texas, has been purchased by A. T. Stanford. He will operate as Stanford & Co.

The Shreveport Mill & Elevator Company has opened a new oat elevator at Shreveport, La., equipped with modern unloading machinery.

The Edmond Grain Company of Edmond, Okla., has been reorganized. J. B. Palmer is general manager and will have charge of the elevator.

Palmer Briggs is general manager of the elevators of the Farmers Elevator Company at Granite, Okla., and Mangum. He succeeds W. D. Mathews.

The Priddy-Maer Elevator Company of Fort Worth, Texas, which formerly operated as Priddy & Co., has opened a 130,000-bushel elevator there for business.

A grain and hay business is to be conducted at Memphis, Tenn., by E. R. Gardner and T. B. Greer under the name of the Gardner-Greer Grain Company.

The equipment of the Columbia Mill & Elevator Company at Columbia, Tenn., has been improved and a new office building, fully equipped, has been completed.

E. F. Commons is president and A. F. Sullins secretary and general manager of the Hammon Mill & Grain Company of Hammon, Okla., which is capitalized at $50,000.

J. F. Johnson, N. A. Jennings, H. H. Davis, J. W. Vann and C. C. Young have incorporated at Watertown, Tenn., as the Watertown Grain & Feed Company. Its capital stock is $15,000.

A wholesale and retail grain and feed business is to be conducted at Graham, Texas, by Charles E. Hinson who recently resigned his position as assistant manager of the Graham Mill & Elevator

company. With him are associated C. B. Hockaday and D. Hockaday. They will operate as the Hinson-Hockaday Grain Company and have bought the Harrison Building in Graham.

J. I. Balcom and Homer Wheeler and J. W. Brady have incorporated at Erick, Okla., as the Farmers Union Co-operative Exchange and will deal in grain, feed and flour. The capital stock of the firm is $10,000.

The property of the Page Elevator Company at Hominy, Okla., has been purchased by the Linepah Hay & Grain Company of Linepah, Okla. The Linepah company owns several elevators in eastern Oklahoma.

James O. Hudson has bought the Badger interests in the Badger-Hudson Grain Company at Pawnee, Okla., and will operate hereafter as the Hudson Grain Company. Mr. Hudson is erecting a large flour and feed warehouse on the Santa Fe.

Harry L. Sovert has left the Oklahoma City Mill & Elevator Company of Oklahoma City, Okla. of which he was assistant general manager and manager of the grain department and is now general manager of the Waco Mill & Elevator Company at Waco, Texas.

Oscar Robinson, for years in the grain business at Gage, Okla., and D. W. Robinson, formerly of South Texas, have organized at Enid, Okla., as the Robinson Grain Company. The company will do a wholesale business and operate elevators at Oreana and Fairfax.

The Liske Grain Company of Canadian, Texas, has a new elevator there which will be completed soon. Its equipment includes a special leg, 1,800-bushel hourly elevating capacity; Fairbanks-Morse 10-horsepower Motor, double lift, modern 1,000-bushel hopper scale and 10-ton truck scale and a 40,-foot manlift.

The Morrison Bros.' elevator at Pond Creek, Okla., has been leased by the Enid Milling Company. The Morrison Elevator at Renfrew has been leased by the Farmers Elevator Company. The Morrison company is in the hands of a receiver and their elevators at Medford, Jefferson and Bancroft are idle.

The name of the Fitzpatrick Brokerage Company at Fort Worth, Texas, has been changed to that of the Tillery Brokerage Company. Mr. Fitzpatrick has left the company and is now associated with the milling wheat department of the Simonds, Shields, Lonsdale Grain Company of Kansas City, Mo. The Tillery company deals in milling wheat, coarse grains and feed.

WESTERN

Nels Distad is now manager of the Farmers Elevator at Reserve, Mont.

A new elevator is being erected at Sedgwick, Colo., by J. W. Lahart.

R. W. Mortell has reopened the Imperial Elevator at Gildford, Mont.

Joe Williams is now manager of the Arco, Idaho, elevator of the Thomas Bros.

A new engine has been installed in the Handel Elevator at Musselshell, Mont.

The Melstone Grain Company of Melstone, Mont., has its elevator open for business this fall.

The Greeley Elevator at Big Sandy, Mont., is now under the management of W. A. Schurman.

The Montana Elevator at Moccasin, Mont., is to be conducted by D. A. Hill. He succeeds C. B. Smith.

A new Fairbanks-Morse 20-horsepower Engine has been installed in the Farmers Elevator at Froid, Mont.

The Equity Elevator Company at Harlem, Mont., is to be operated under the management of R. J. Walker.

The elevator of the Farmers Equity at Buhl, Idaho, has been leased by the Globe Mills of Los Angeles.

The Rocky Mountain Elevator at Simms, Mont., has been opened for business with Edw. Hebert as manager.

J. W. Moulton is succeeded by J. H. Llewellyn as manager of the Grain Growers Warehouse at Lind, Wash.

A grain, hay and fuel business is to be conducted in the Valley Commercial Building at Fruita, Colo., by J. S. Smith.

The Gallatin County Union has purchased the grain business of the Gordon-Thorson Company at Bozeman, Mont.

B. H. Friend has been succeeded as manager of the La Salle Co-operative Exchange, La Salle, Colo., by Paul S. Meyer.

The contract has been let by the Colorado Milling & Elevator Company for the erection of a 30,000-bushel elevator at Big Bend (Wiley p. o.), Colo.

A grain elevator of 30,000 bushels' capacity is being erected at Great Falls, Mont., for the Montana Flour Mills Company. The elevator was built originally at Ashuelot, by a subsidiary of the Montana Flour Mills Company, but the shipments were not sufficient to warrant the retention of the house there.

A new warehouse is to be erected at Livingstone, Mont., for the Gary Hay & Grain Company. The building will cost $3,000.

The Farmers Elevator at Twin Bridges, Mont., has been opened up under the name of the Western Grain Warehouse Company.

The Mesilla Valley Products Company of Las Cruces, N. M., has changed its name to that of the Valley Products Company.

The elevator of the Russell Gates Grain Company at Elbert, Colo., is being operated under lease by the Elbert County Farmers Exchange.

The elevator at Ballatine, Mont., of the Ballatine Grain Association is being overhauled and placed in condition to handle the new crop.

The Fulton Warehouse, Tonasket, Wash., has been opened by the Macdonald Grain Company of Seattle, with J. R. Merrill in charge.

A branch office has been established at Sterling, Colo., by Phelps, Funk & Co., of Denver, Colo. It will be under the management of V. C. Scott.

The Independent Elevator at Denton, Mont., owned by the Montana-Dakota Elevator Company is to be conducted under the management of George Hayes.

The South Idaho Wheat Growers Association is interested in the erection of a 10,000-bushel elevator at Malad, Idaho. It is of concrete construction and fireproof.

J. P. Jentges, H. N. Dion, K. E. Herrick and M. M. Schookley are the directors of the Farmers Grain Company of Wibaux, Mont. Its capital stock amounts to $10,000.

The elevator at Portales, N. M., formerly owned by J. C. Crume has been purchased by A. G. Troutt. The business will be operated as the A. G. Troutt Grain Company.

Charles Bovey is now warehouse manager for the Riggs-Mickelson Grain Company at Ruebens, Idaho. He was formerly with the Orofino-Rochdale Company at Orofino, Idaho.

C. M. Replogle is general manager of the Farmers Union Co-operative Elevator & Supply Company at Longmont, Colo. He has been associated in the grain business in Nebraska, Iowa, and Colorado. He succeeded H. V. Rover as manager at the Longmont elevator.

A retail store has been opened at San Fernando, Calif., by the San Fernando Grain & Supply Company. Will H. Sanders is manager of the company.

Samuel G. Robinson has traded in his farm for the Wood & Wright Grain Warehouse at Nezperce, Idaho, owned by J. G. Wright. Mr. Robinson will take charge of the two warehouses.

The Montana Dakota Elevator Company of Minneapolis has purchased the Independent Elevator at Waltham (p. o. Norbert), Mont. It is now being operated by W. M. Claney of Silverton, Ore.

The Las Animas Milling & Elevator Company of Fort Lyon, Colo., has contracted with the Burrell Engineering & Construction Company for a 63,000-bushel reinforced concrete elevator and warehouse.

Dissolution of the Stubbs-Anderson Grain Company at Douglas, Wyo., has been effected. The business will be conducted in the future by Harry Anderson who has been general manager of the concern.

The Gary Hay & Grain Company of Bozeman, Mont., has purchased the elevator at Jefferson Island, Mont., owned and operated by the Montana Grain Growers. Thomas M. Sheehan will be manager.

Electricity will hereafter furnish the motive power in the elevator of the Columbia Elevator Company at Ryegate, Mont. A new electrically operated dump has been installed and a new motor.

The elevator and mill property of the Farmers Grain & Trading Company at Haxtum, Colo., has been purchased by the Colorado Milling & Elevator Company. The firm is also erecting a 40,000-bushel concrete elevator.

Wallace & Bryant and Hamilton & Menderson, shippers of California beans, located at Los Angeles, Calif., have consolidated and incorporated as the Hamilton, Wallace & Bryant with offices in the Central Building.

The plant of the Russell Gates Mercantile Company at Colorado Springs, Colo., has been purchased by the Conley Ross Grain Company of Denver, Colo. He is operating it under the name of the Conley Ross Grain Company.

FIRES—CASUALTIES

Linn, Kan.—Fire slightly damaged the Farmers Elevator here.

Paulding, Ohio.—The hay warehouse of Bitner & Pollock was burned on August 11.

Bowling Green, Mo.—Fire destroyed the Hume Elevator and Mill located at this place.

Rodney, Iowa.—Fire destroyed the Armour Grain Company's elevator located at this place.

Fairfax, Okla.—Fire damaged the elevator of the Witcraft Grain Company with a loss of $10,000.

Benonine, Texas.—Fire destroyed G. E. Harris' elevator here. The cause of the fire is unknown.

Lesterville, S. D.—Fire damaged to the extent of $2,000, the elevator of Ed. Kast at this place.

Milton, Vt.—Fire damaged the feed and grain store of James A. Ryan here with a loss of $15,-000.

Redmon, near Paris, Ill.—The Henn & Briggs Elevator here burned together with corn, wheat and oats.

Llano, Texas.—The warehouse of the Houghton Grain Company was damaged by fire to the extent of $1,500.

Niotaze, Kan.—The Rea-Patterson Milling Company's elevator burned with loss of $2,000, covered by insurance.

Lone Wolf, Okla.—The store and its contents of the Farmers Co-operative Company here were destroyed by fire.

Grafton, N. D.—A slight loss was sustained by H. M. Hanson on September 1, when lightning struck the elevator.

Porter, Minn.—On September 4, lightning struck the elevator of the Eagle Roller Mill Company and did slight damage.

Hargrave, Kan.—The elevator of M. T. Moran burned on the night of August 28. The cause of the fire was not reported.

Princeville, Ill.—The elevator of R. Cox & Son here was burned recently. The elevator had not been in use for some time.

Geraldine, Mont.—On August 23, fire destroyed the elevator and mill of the Geraldine Milling Company together with 12,000 bushels wheat. The fire is believed to have followed an explosion of the engine. The mill had a capacity of 100 barrels, the elevator of 25,000 bushels.

Blabon, N. D.—The elevator of the Monarch Elevator Company here was destroyed by fire which was caused by lightning.

New Haven, Mo.—Fire destroyed F. Smith & Co.'s feed establishment. The stock was a total loss; the building was badly damaged.

Waco, Texas.—The elevator of the Early Grain & Seed Company was slightly damaged by fire on August 28. The cause of the fire is unknown.

Derby, Kan.—The Larabee Flour Mills Corporation lost its elevator by fire. Six hundred bushels of wheat were also destroyed in the fire.

Fall River, Mass.—The grain storage bins of Mrs. John E. Enright & Sons burned on August 9. The loss amounted to several thousand dollars.

Gonzales, Texas.—Fire destroyed the Farmers Union Warehouse and a considerable quantity of flour, feed, cotton and oil with a loss of $25,000.

Pierce, Neb.—The house of the Farmers Grain & Coal Company was destroyed by fire which spread and destroyed half a block of buildings.

Walnut Grove, Minn.—With a loss of between $8,000 and $9,000, the Walnut Grain & Supply Company's elevator was destroyed by fire on August 25.

Kempton, Ind.—The cob house at the elevator of Cohee & Clark was damaged by fire. The fire was extinguished before it reached the elevator.

Chester, Vt.—Fire on August 10 destroyed the warehouse of W. L. Ware & Co., grain dealers. The loss amounted to between $15,000 and $20,000.

Toledo, Ohio.—Fire on August 21 resulted in damage amounting to $1,500 to the building and contents of the Central Elevator & Grain Company.

Scranton, Kan.—Slight damage was done to the engine house of the Farmers Co-operative Elevator on August 12. The fire resulted from spontaneous combustion.

Waterville, Maine.—Fire on August 16 destroyed with a loss of $35,000, the grain elevator of the Merrill & Mayo Company. The elevator contained 14,000 bushels oats, and 16,000 bushels corn. In

an adjoining building 1,000 tons mixed feed and 1,000 barrels flour were damaged by water. An overheated box evidently caused the fire.

Sherwood, Ohio.—On August 26, P. J. Leithauser's elevator was damaged by fire of unknown origin.

Mexia, Texas.—Fire destroyed Wilson & Dickey's warehouse, dealers in feed, grain and flour. The loss amounted to $12,500.

Forney, Texas.—C. L. Duke's warehouse burned with a loss of $10,000; half of the loss was covered by insurance. The fire was caused by spontaneous combustion.

Kemp, Ill.—On September 7 a very serious loss by fire was sustained by Munson & Moses, operators of an elevator at this point. The cause of the fire is unknown.

St. Louis, Mo.—On August 2, the Cass Avenue Feed & Coal Company was damaged by fire. The loss amounted to $10,000 on hay and grain in storage at the time.

Brunswick, Neb.—Fire of undetermined origin destroyed the Calkins Elevator here with 1,000 bushels of corn. The loss amounted to $10,000; fully covered by insurance.

York, N. D.—Lighting struck and destroyed the old Winter-Truesdale-Ames Elevator here, recently purchased by Carl Ryding. The loss was partly covered by insurance.

Defiance, Ohio.—The Farmers Grain Company's elevator which is operated by them under lease, was destroyed by fire recently with a loss of between $7,000 and $8,000.

Madill, Okla.—On August 4, the engine room building, office and part of the warehouse of the Madill Grain & Elevator Company burned. The loss amounted to $30,000.

Coats, Pratt County, Kan.—Nine thousand bushels of grain were spilled when the Farmers Elevator here collapsed. The rodding in the building gave way causing the collapse.

Radium, Kan.—On August 6 lightning struck the elevator of the Midwest Grain Company of Hutchinson. This was followed by fire which did considerable damage to the house.

Brandt, S. D.—Fire destroyed on August 1, the Farmers Elevator here. The loss is partly covered by $28,000 insurance. A large amount of grain and coal was destroyed.

Verdi, Minn.—The Equity Co-operative Elevator Company's elevator burned on August 20, when it was struck by lightning. A new 10-horsepower motor had just been installed.

Centerville, S. D.—A new elevator was destroyed by fire which is believed to have been started by a lighted cigarette stub. The loss was $7,000 on the elevator and $2,000 on contents.

Red Wing, Minn.—The grain elevator which J. E. Danielson of Minneapolis was ready to put into operation burned on August 25 with a total loss. The fire was caused by a live wire.

Firth, Neb.—The elevator and mill of the Nebraska Corn Mills together with grain stored in the tanks were destroyed by fire on September 7. The loss amounted to about $12,000.

Brandon, Man.—Fire destroyed the elevator of the Midland Grain Company owned by Messrs. Randall, Lee & Mitchell, Ltd., of Winnipeg. The elevator had capacity of 25,000 bushels.

Ewart, Iowa.—The Kearney Bros.' elevator here burst spilling large quantities of its contents on the ground. Owing to a shortage of cars, the elevator was filled to beyond its capacity and broke under the strain.

Terre Haute, Ind.—Damages amounting to $1,000,000 and injuries to several employes resulted from a dust explosion in the plant of the American Hominy Company on September 12. The entire plant was destroyed.

Brawley, Calif.—Fire damaged the packing shed and warehouse of E. W. Chase with damage to buildings, machinery and grain amounting to $30,000. Nearly 60 per cent of the grain was not covered by insurance.

Buffalo, N. Y.—The elevator of the American Warehouse & Elevator Company was damaged by fire to the extent of $25,000 on August 7. The marine tower and weighing room were destroyed. Defective wiring is believed to have caused the fire.

Yoder, Kan.—The Red Star Milling Company's elevator burned recently. The fire resulted from hot cinders blown from a passing locomotive. There were 5,200 bushels wheat in the elevator at the time of which part was saved. The loss amounted to $7,500.

Leamington, Ont.—Fire destroyed the United Farmers Co-operative Society's elevator here recently. Alfred Sedrington, the manager, was burned as he was fighting his way out of the burning building. The fire followed an explosion. Damage amounted to $25,000.

OBITUARY

BLACK.—Neil Black died recently following an illness of over a year. He was superintendent of the Gillespie Elevator at Fort William. He came to Winnipeg from Scotland 42 years ago. Ten years later he went to Fort William where he became assistant superintendent of the Government Elevator. From there he went to the Dwyer Elevator where he stayed until the Dwyer interests were sold to the Gillespie company.

CASE.—Asthma and a complication of diseases caused the death of Robert C. Case aged 66 years at his home in Decatur, Ind. He was a former grain dealer there. His widow and six children survive him.

DAVIS.—Charles R. Davis died recently at Brooklyn, N. Y. He was formerly connected with the International Grain Elevator Company. A son survives him.

DREYFUS.—Aged 75 years, John Dreyfus died at Colorado Springs recently. He was a pioneer grain dealer of Tulsa, Okla., and made a large fortune in the grain business in France and Germany.

EBELING.—George L. Ebeling died recently. He was manager of the Farmers Union Elevators at Leona and Denton, Kan., at the time of his death.

HABERER.—On August 8, Will Haberer died of heart trouble. He was connected with the Ohio Valley Seed Company of Evansville, Ind.

HULME.—James L. Hulme died aged 55 years. He was a member of the Haymarket Grain Company of Nashville, Tenn.

KEATLEY.—John H. Keatley died on August 3 at Minneapolis. He was president and manager of the N. A. Matson Company and was well known to the grain and milling trade of that city.

KIMBALL.—Frank Kimball died at his home in Oak Park, Ill., on August 15 aged 69 years. He was a well known member of the Chicago Board and was connected with the Bartlett Frazier Co.

MERRILL.—An acute attack of heart disease caused the death of William Merrill on August 21, aged 60 years. He was a resident of Superior, Wis., and for 15 years had been employed as feed salesman of the J. L. Ross Company of Superior, Wis.

MONNETT.—Aged 43 years, Kay Monnett died at his home in Bucyrus, Ohio, recently. He was a well known grain and livestock grower and dealer.

NISBET.—John Nisbet died following an operation recently aged 52 years. He was one of the founders of the Granite Grain Company of Sugar House, a suburb of Salt Lake City, Utah.

PORTER.—George W. Porter died on August 27 at his home in Minneapolis. His first connection with the grain trade was with the Pratt-Porter Company. Later he was with the Atlantic and Empire Elevator Companies from which he retired in 1899. In 1906 he reentered the grain business as president of the Minnekota Elevator Company and remained as such until his death. He became a member of the Chamber of Commerce Association in 1884. His widow and one son survive him.

QUINN.—On August 15, W. A. Quinn died at his home in Flandreau, S. D. Mr. Quinn went to Flandreau in 1905 as secretary of the Bennett Grain Company and had held that position until the time of his death. He is survived by his widow, two sons and two daughters.

STARIKA.—Heart failure caused the death of Joe N. Starika manager of the Miller Elevator Company at Lake City, S. D. He was taken ill while in Webster, S. D., and died in a local hospital. His widow and seven children survive him.

TAYLOR.—James H. Taylor died at Stillwell, Ind., aged 79 years. He was a grain dealer there.

TYSON.—Walter L. Tyson died recently at Clarksburg, Ont. He was well known in the grain and milling circles of Ontario. He was 77 years old and for years operated the Beaver Valley Flour Mills at Clarksburg.

WARZECKA.—Heart disease caused the sudden death of Alex Warzecka, grain buyer at the O. & M. Elevator at Geneseo, N. D. He was taken ill while at work around the elevator. His widow and six children survive him.

WEIGEL.—After a short illness, John Weigel died at his home on August 11. He for many years owned and operated a grain and feed store at Evansville, Ind. His widow, three sons and one daughter survive him. He was 69 years old.

WOOD.—R. Lee Wood, manager of the Coon Rapids (Iowa) Grain Company, was found dead recently. Stomach trouble is believed to have caused his death.

WOODHULL.—Morris Woodhull died recently aged 80 years. He was owner of the Woodhull Grain & Seed Company at Dayton, Ohio.

SALES OF SUPERIOR ELEVATOR CUPS

The K. I. Willis Corporation of Moline, Ill., reports the following recent sales of its Superior Elevator Cups:

Williams Bros. Company, Kent, Ohio, 300 cups, one of their repeat orders; Nampa Milling & Elevator Company, Nampa, Idaho, 650 cups; National Elevator Company, Winnipeg, Man., 225 cups; M. O. Hocum, Iowa Falls, Ia., 150 cups; Trenton Milling Company, The Trenton, Ill., 125 cups; Winchester Milling Company, Winchester, Va., 160 cups; Northern Illinois Cereal Company, Lockport, Ill., 940 cups, one of their many repeat orders; The Ord Milling Company, Ord, Neb., 100 cups; Warsaw Milling Company, Warsaw, Ind., 150 cups; Simon's Rice Mill, Crowley, La., 160 cups; Farmer's Elevator Company Walker, Iowa, 150 cups; Pioneer Flour Mills, San Antonio, Texas, 210 cups, ordered through the Allis-Chalmers Manufacturing Company, one of their many repeat orders; Larabee Flour Mills Corporation, St. Joseph, Mo., 2,500 cups to increase capacity of their receiving elevators; St. Elmo, Milling Company, St. Elmo, Ill., complete high speed elevator with 200 cups; Acme Manufacturing Company, Dixon, Ill., one complete high speed elevator with 126 cups; Home Milling Company, Wapello, Ia., 145 cups; Mead & Bannister, North East, Pennsylvania, 195 cups, ordered through Robinson Manufacturing Company, one of their many repeat orders; J. G. Hunt Grain Company, Wichita Falls, Texas, 240 cups for receiving elevator, ordered through the Burrell Engineering & Construction Company, one of their several repeat orders; Board of Commissioners of the Port of New Orleans, 400 cups to increase the capacity of the marine leg; Liberty Mills, San Antonio, Texas, 900 cups; The Harshbarger Milling Company, Milton, W. Va., 200 cups; Allis-Chalmers Manufacturing Company, 1,160 cups, one of their many repeat orders; Mitchell-Maskrey Company, Maquoketa, Iowa, ordered through the B. F. Gump Company, one of their many repeat orders, 185 cups; Rockingham Milling Company, Harrisonburg, Va., 400 cups; Matlack & Woolcott, Winchester, Ky., 120 cups, one of their repeat orders; Reuter Milling Company, Flat River, Mo., 180 cups; Nasmith, Ltd., Toronto, Ont., ordered through the Hartz Machinery Company, one of their several repeat orders, 110 cups; Farmer's Elevator Company, Alburnett, Iowa, 135 cups; The Quaker Oats Company, Chicago, Ill., 375 high speed cups for the mill in Cedar Rapids, Iowa, 200 cups for their mill in Akron, Ohio, many repeat orders before; J. F. Imbs Milling Company, St. Louis, Mo., 180 cups, repeat order; El Campo Rice Milling Company, El Campo, Texas, 250 cups, repeat order; Atlantic Rice Mill Company, Beaumont, Texas, ordered through the Whitney Supply Company, New Orleans, La., one of their many repeat orders; Crowther Bros. Milling Company, Malad City, Idaho, 230 cups and other equipment, repeat order; The H-D-Lee Flour Mills Company, Salina, Kansas, 360 cups; Durant Roller Mills, Durant, Iowa, 130 cups, repeat order; Farmer's Co-Operative Elevator Company, Grundy Center, Iowa, 145 cups; L. & L. Jenison Company, Jenison, Michigan, 250 cups; Wellman Roller Mills, Wellman, Iowa, 130 cups; Montana Flour Mills Company, Bozeman, Montana, 165 cups; Clinton Corn Syrup Refining Company, Clinton, Iowa, 110 cups; G. J. Burrer & Company, Centerburg, Ohio, 175 cups; Penninsular Milling Company, Flint, Mich., 210 cups; Martin Bros., Inc., Klamath Falls, Ore., 120 cups; Kansas Milling Company, Wichita, Kan., 140 cups; H. J. Klingler Company, Butler, Pa., 200 cups, ordered by B. F. Gump Company; The S. Alfred Seely Company, Spencer, N. Y., 110 cups; Amana Society, Amana, Iowa, 300 cups; and a number of orders for smaller quantities from the D. G. Huhn Company, Saranac, Mich.; Osakis Milling Company, Osakis, Minn.; Southam Farmer's Grain & Elevator Company, Southam, N. D., repeat order; Las Vegas Roller Mills, Las Vegas, N. M., repeat order; Kalona Motor Company, Kalona, Iowa; Marsch Bros., Wayland, N. Y.; Nordyke & Marmon Company, Indianapolis, Ind.; Weller Manufacturing Company, Chicago, Ill.; Puritan Manufacturing & Supply Company, Omaha, Neb.; C. W. Irish, Clinto Junction, Wis.; Farmer's Elevator Company, Harcourt, Iowa; G. J. Burrer & Sons, Sunbury, Ohio; Ever-Ready Chocolate Company, Rochester, N. Y.; A. W. Hayes Company, New London, Iowa.

THE Adams Seed Company of Decorah, Iowa, has been adjudged bankrupt and will be operated under a receivership.

ENCLOSED is my subscription to the AMERICAN GRAIN TRADE, keep the good journal coming. Have used it 25 years. Good luck and good health to you all. W. F. MORGAN, Route 1, White Cottage, Ohio.

THE Iowa Seed Company of Des Moines, Iowa, has gone into the hands of a receiver. H. V. Harden and John McKay, Jr., have been appointed such by the court.

THE judge of the Federal Court at Houston, Texas, has adjudged the Lowery Grain Company of Houston bankrupt. W. C. Lowery is president and G. A. Garza, secretary and treasurer of the firm.

A PETITION in bankruptcy has been filed by the Purity Seed Company of Memphis, Tenn., in which D. K. Grace and G. T. Hayes are interested. The liabilities of the firm are $2,831.92; its assets, $3,698.12.

NATURE seems to be picking on Russia. In the Crimea district the wheat crop sown last winter has been almost destroyed by creeping locusts. Thirty-six tons of young locusts were burnt on the lands of a single village. The plague is extending into Samara, but the damage there is not known at present.

HAY, STRAW AND FEED

HAY SCARCE AT CHICAGO

Albert Miller & Co., of Chicago say in their letter of September 13: "There is splendid demand for better grades of Timothy and Clover Mixed, also for southwestern feeding Prairie. Continued light receipts will mean further advance in prices and now is the time to ship if you desire to take advantage of the coming favorable market."

EXPORTS OF PREPARED FEEDS

The figures of the Department of Commerce for the last month available (June) show that our exports of prepared feeds, not medicinal, totalled 1,865,570 pounds. The largest buyer was Holland, with 663,000 pounds, Cuba was next with 500,000 pounds, England third with 336,000 pounds and Japan fourth with 80,000 pounds. Japan also imported from us some 250,000 pounds of screenings during June.

TIMOTHY STEADY AT ST. LOUIS

In their hay market letter of September 12, the Graham & Martin Grain Company of St. Louis, says: Timothy hay market continues to rule steady with an excellent local demand for the better grades of Timothy, which are in scant offering and selling readily on arrival at fair prices. On the other hand, the offerings of medium and lower grades are very liberal and are difficult to place to advantage. There is an over-supply of common hay on the market and low prices are being made to move.

A NEW VARIETY OF SWEET CLOVER

A new Sweet Clover is on trial in Wisconsin. Albatrea Sweet Clover is the full name of the late arrival. It has a yellow blossom and is a bienniel plant and hails from Canada. More than 250 test plots have been seeded with Albatrea this year by members of the Wisconsin Agricultural Experiment Association. Nearly every county in the state has one or more of these plots. According to E. D. Holden, of the agronomy department at the Wisconsin College of Agriculture, the advantages of the Albatrea "yellow blossom" over the common Sweet Clover are: It has a finer stem; does not get coarse and weedy, and is easier to cure.

CINCINNATI HAD HEAVY RUN OF HAY

The hay market is just recovering from a fairly heavy run of hay during the last week, which was caused largely by the accumulation over Labor Day. In spite of those heavy receipts, however, top grades of Timothy and Light Mixed held up exceptionally well and are in a strong position today. Low grades became very weak and likewise Heavy Clover Mixed and Clover.

The demand is not very broad, and is confined almost entirely to top grades and we are therefore, advising all of our shippers to confine their shipments to top grades. An extremely heavy run of hay is very improbable at this time, because of the serious car shortage.—*The Mutual Commission Company, Cincinnati, Ohio, in letter of September 12.*

HAY STEADY AT ST. LOUIS

BY S. F. LARRIMORE

St: Louis hay prices continued very steady during August, despite the rather liberal receipts being mostly of the lower grades. About the third week of the month receipts slowed up and grades improved, but only for a few days, receipts again increasing and grades coming in poorer again toward the end of the month.

Alfalfa hay of all grades was the brightest spot in the St. Louis market, receipts being light and prices strong. In fact receipts were such that the trade commissioned various purchasing agencies to go out and buy them a supply at a good figure—quotations being sent as far away as Arizona and Colorado. There is an excellent demand for high grade hay of all varieties and only a limited supply, but the lower grades are rather quiet. It seems that the rather unusual weather this season has produced very little good hay so far, the hay being burned up in some of the dry sections and flooded or filled with weeds in other sections, and as the best grades of old hay have been already shipped the lower grades are now coming in, though most of the receipts are of new hay.

The Timothy hay market continues to rule firm on good No. 1 which is in scant supply with an excellent local demand. Standard Timothy is also steady, there being an excellent demand, but No. 2 and lower grades of Timothy which are selling relatively well. Light Clover Mixed hay is firm on good No. 1 Light Mixed, which is in scant supply and a good demand. The medium and lower grades are in liberal supply and dull. Heavy Clover Mixed hay is steady, with light receipts and a good demand. Dark hay is quiet and dull. Pure Clover hay is also steady, with equally light receipts and a good demand.

The Prairie hay market is much more firm now than it was a few weeks ago, as the heavy receipts have been cleaned up and the demand continues strong. In brief, anyone having any of the better grades of hay on hand can secure a very good price for it in the St. Louis market at present, especially Alfalfa, and anyone wishing to purchase the lower grades of hay can do so at very low prices in this market. St. Louis is always a good market for the better grades of hay.

NEW FEED BRANDS

Poultry feed, scratch size. International Sugar Feed Company, Minneapolis, Minn. Filed April 15, 1919. Serial No. 117,482. Published August 15, 1922.

"Molas-o-Meal" stock feed. Albers Bros. Milling Company, San Francisco, Calif. Filed January 10, 1921. Serial No. 142,002. Published August 15, 1922.

"Egatine" poultry feed. Tioga Mill & Elevator Company, Waverly, N. Y. Filed September 10, 1921. Serial No. 152,184. Published August 15, 1922.

"Merit" Alfalfa feed, horse feed, mule feed, Alfalfa molasses, dairy feed, cow feed, hog feed, pig feed, hen feed, chicken feed, scratch feed, poultry

feed, cornmeal, wheat flour and rye flour. Hardeman-King Company, McAlester, Okla. Filed July 22, 1921. Serial No. 150,811. Published August 8, 1922.

"Mor Kik" chicken feed. Milton Liggett, Seymour, Iowa. Filed September 9, 1921. Serial No. 152,762. Published August 22, 1922.

Feed Trademarks Registrations Canceled

88,514. Poultry feed. Nickel Plate Elevator Company, Cleveland, Ohio. Registered September 24, 1912. Canceled June 19, 1922.

136,880. Certain named poultry and stock feed. The Nickel Plate Elevator Company, Cleveland, Ohio. Registered November 9, 1920. Canceled June 19, 1922.

MANY PRODUCTS MADE FROM PEANUTS

The commercial production of peanut oil, which has developed rapidly since 1915, has resulted in the appearance on the market of large quantities of by-products that are used principally as feeds for live stock. One reason for the phenomenal growth of the industry is that the peanut can take the place of cotton as a cash crop in regions where the boll weevil has made the growing of the fiber crop unprofitable. The peanut has been a boon to the oil millers as well as to the planters for the oil is produced in the same mills that are used for extracting cottonseed oil.

The processes of making peanut oil and the by-products are described in Department Bulletin 1096, "By-Products from Crushing Peanuts," by J. B. Reed, of the Bureau of Chemistry, just issued by the United States Department of Agriculture. The principal products other than the oil are peanut-oil cake, which is defined as the residue after extraction of part of the oil by pressure or solvents from peanut kernels; peanut-oil meal, which is the ground peanut-oil cake; and unhulled peanut-oil feed, which is the ground residue obtained after extraction of part of the oil from whole peanuts. The ingredients of the last-named feed must be designated as "peanut meal and hulls." Theoretically peanut-oil meal, which is made from the kernels after a part of the oil has been extracted, should contain no hulls, but because commercial methods cannot remove all the hulls it is necessary to permit a small amount of hulls in the meal in order that the definition may be practical.

The bulletin contains detailed information and analyses of the different kinds of feeds and formulas for determining the percentage of hulls. Much of the information is technical and of interest only to feed analysts and officials having to do with the enforcement of feed laws.

NEW STANDARD FOR BLACKEYE BEAN ADOPTED

The San Francisco Chamber of Commerce and the California Bean Dealers' Association have adopted the following standard for No. 1 Blackeye beans: Sound, 96 per cent, Splits, 2 per cent, Adobe, 1 per cent, damaged or other beans, 1 per cent; beans must be fairly uniform in size and color.

In addition to the above there shall be a tolerance of 4 per cent for so-called aphis damage or spotted beans, provided the spotted beans are not misshapen in size or distinctly off in color. Any blackeye that is deformed or is not up to color specifications because of this so-called aphis damage will come under the 1 per cent allowed for damage.

BARLEY FOR FEED

The Eighteenth Amendment cut off a large market for barley and growers of this cereal were obliged to find new buyers for their grain. As a result of this barley as a hog feed is coming on the markets in increasing amounts. The United States Department of Agriculture has investigated into the possibilities of barley as a feed and into the relative value of light and heavy barley, the only two grades now recognized.

During 1921 the Department made feeding tests of the two grades, and the trials will be repeated. Not enough data is available yet for definite conclusions as to the relative merits of the light and heavy grain, but the results have shown that high-class barley has a feeding value only slightly lower than good shelled corn. When these tests are completed the Department will have additional information on the methods of feeding barley, whether or not it should be fed whole, rolled, dry, or soaked.

It is expected that barley will be used much more in the future as a hog feed, especially when there is a scarcity of corn and when barley is comparatively cheap.

HAY LOWER IN NEW YORK

BY C. K. TRAFTON

Speaking in a broad and general sense, conditions in the hay market during the month under review have been generally more satisfactory. Still, it is only fair to acknowledge that the buying element had far more reason for gratification than the selling. It is true, there has been a material and seasonable increase in the volume of business, but this was of course largely brought about by the far larger movement from the interior which was wholly natural and to be expected at this stage. In other words, following the harvesting of the new crop farmers and country shippers naturally manifested greater willingness to sell and in order to do so promptly they found it necessary to make appreciable reductions in prices. As is almost invariably the case this was particularly true of common and inferior descriptions which were in abundant supply and comparatively slow of sale.

It was plainly evident at the beginning of the month that distributors and consumers generally had permitted their stocks to run down to a low level, having bought in the most sparing manner possible, as they expected much lower cost after new began to arrive. It seems almost superfluous to say that sellers witnessed the steady decline with much dissatisfaction as they had become accustomed to seeing prices ruling at an appreciably higher plane for so many months. Nevertheless, they realized that it was useless to endeavor to stem the tide, especially after the issuance of the official crop report for August which showed better conditions than generally forecast.

In a word, the condition was placed at 90.8 per cent, against 88.7 per cent in the previous report. This raised the yield per acre to 1.48 tons making a total of 110,300,000 tons against 1.44 tons and 107,000,000 tons indicated in July. It is noteworthy at this juncture that the total last year was 96,802,000 tons. It was, of course, the consensus that the materially larger production had been brought about by the exceptionally favorable weather much of the time during the spring and early summer when the rainfall was generally above an average in many of the chief hay producing states.

In the judgment of many of the best informed

and conservative dealers the grading of the new crop thus far received has been in the main fairly satisfactory. It is true, a few cars had showed discoloration from the rain as well as some being slightly heated. Complaints on this score subsided somewhat subsequently.

The bulk of the hay received in the last week or two showed improvement, only a few cars showing discoloration or other impairment. Of course, there was the usual amount of common and poor hay received and the customary difficulty was experienced in disposing of such descriptions. At the moment there are comparatively few horses employed and in nearly all cases feeders insisted upon using only good to choice lots of either Timothy or Light Clover Mixed, and therefore it is a hard task to secure bids for poor grades. As repeatedly stated in previous reviews, it is exceedingly poor policy to ship such hay to this market, or probably any other, as it is frequently if not always almost impossible to obtain a reasonably good bid. In fine, such hay seldom if ever brings more than enough to pay freight or other charges.

While prices for straw have been down to a new crop basis, which has made the cost level slightly lower, there has been no decided weakness. In fact, there was no depression, despite the decline in hay, as receipts have continued light, and hence there was no selling pressure.

SPRING SEEDING OF ALFALFA

The Wisconsin Experiment Station in Bulletin 308 on "Alfalfa in Wisconsin" says that there are many ways of growing Alfalfa but the outstanding method used in Wisconsin is to spring-sow with grains. The greatest dangers which attend this method are that lodged grain will smother the seeding, and severe drought following the removal of the grain crop may ruin the stand. These difficulties are effectively overcome by cutting the nurse crop for hay just after it is headed out. It gives the Alfalfa a good growing start before the dry weather approaches and enables it to withstand the attacks of summer drought and grasshoppers later on. Where grain is allowed to ripen, early maturing varieties should be used, such as Kherson oats or pedigreed barley. Grain should be sown at the rate of not more than one bushel an acre to avoid crowding the Alfalfa too severely.

The particular advantages of sowing Alfalfa with a nurse crop come from the prevention of soil washing, the checking of weed growth, and returns from the soil in the form of grain or forage the first year.

Winter wheat and Winter rye are sown in September, which is too late for Alfalfa. These grains may be used as nurse crop with some degree of success by sowing the Alfalfa early the next spring before the frost is out of the ground and preferably on top of the last snow. When clay or loam soils thaw out they become honeycombed with cracks and small crevices which later close up and cover the seed. On lighter soils this does not occur so effectually, and harrowing in the seed is necessary, a practice in no way harmful to the growing rye or wheat. While Alfalfa seed, like Clover, is not injured by being seeded on snow or frozen ground and germination occurs with the onset of warm weather, this method seems to give much better general success with Clover than with Alfalfa.

HARDY AND WEAK ALFALFA

Most of the Alfalfa seed used in Wisconsin is of the common purple flowered, western grown variety generally sold as Montana, Kansas, or Dakota grown, depending upon the state in which it was produced, says the writer of Bulletin 308 of the Wisconsin Experiment Station. These are excellent varieties, fairly hardly and a good producer, with an erect and upright habit of growth which is desirable. Tests conducted with 16 samples of common seed from growers in New Mexico, Arizona, and California show conclusively that common seed produced in these states is on the average decidedly less hardy and more liable to winter-killing when in Wisconsin than Kansas seed or common seed produced farther north. On the other hand, trials made with 40 samples of Kansas and Nebraska-grown common seed in comparison with 20 samples of Montana and South Dakota-grown seed practically indicate that they are about equal in hardiness. It must be borne in mind that these tests have plainly shown a distinct variation in the hardiness of Alfalfa from the seed produced by different growers in the same state and even in the same locality. For example, we find an occasional grower in New Mexico whose common seed produces Alfalfa that is much hardier than that of another grower in the same locality. Likewise, we find an occasional grower in Montana whose common Alfalfa is much more tender than that of the average for that state.

These facts should in no way encourage Wisconsin farmers to buy high-priced common seed with a fancy name attached and for which special claims of hardiness are made. Some strains said to have originated from very old fields in the West often command an extra premium in price. Our trials with these strains have, with a few exceptions, been unsatisfactory.

FEED EDUCATION FOR THE FARMER

In the course of a speech before the recent meeting of the Illinois-Wisconsin Feed Dealers Association, Dr. W. H. Stroud, Director of the Feed Inspection Bureau of the Wisconsin Agricultural Department said:

"According to statistics which we gathered a couple of years ago we found that the most progressive dairymen used four times as much purchased feed as the average dairyman. So you see what a field there is for enlarging your business and at the same time helping the farmer.

"In connection with my part of the work I want especially to urge you to tell the farmer what is the best ration to buy. I also want to say to you to advocate the right kind of feed regardless of your own pocket. The dealer has a right to his 'place under the sun,' but he can forfeit that right if he does not render his service. When a dealer buys feed for $6 a ton and sells it for $14 a ton he is offering a fine argument against his existence. I do not stand against the low grade feed in its proper place, because I believe from an economic standpoint that all by-products having value should be utilized. I am in favor of seeing oat feed sold for a proper purpose, but I do object to seeing it sold under the claim that it is as good as bran, or without labels so that the farmer does not know what it is. When a feed dealer, farmer or any one else tries to sell a product in that way, he is hurting himself in particular and all feed dealers in general."

CAUSES FOR YELLOWED ALFALFA

One or more of three conditions, lack of lime, disease, and inoculation, can usually be found to be responsible for the yellow tinge and stunted growth of Alfalfa about the time of second and third cuttings, says crop men at the New York State Agricultural College.

Lack of enough lime to counteract the acid in soil is given by the college as the most common cause of poor Alfalfa in New York. Even some Alfalfa fields to which lime has been applied before seeding produce one good crop and then if they do not contain enough lime to correct the soil acidity, the Alfalfa turns yellow and dies out. A ton of limestone to the acre immediately after the crop is harvested is recommended by the college.

Another cause of poor Alfalfa is leaf spot, a fungous disease which is not particularly serious and sometimes appears only once. Clipping and destroying the cuttings usually prevents the spread of this disease, but if it persists through more than one crop the college recommends plowing the Alfalfa under and planting the land to a cultivated crop.

Sometimes Alfalfa doesn't grow because the soil is not inoculated. The mere fact scattered plants of Alfalfa and Sweet Clover are seen growing on a field does not necessarily indicate that it will grow Alfalfa well, especially if it has not been inoculated. The best precaution is to inoculate, according to the college specialists.

THE SCIENCE OF ANIMAL FEEDING

BY T. S. EDWARDS

We are living in an age of scientific advancement of every kind and have become so accustomed to simply accepting the benefits of new discoveries that seldom does the average person delve deep into the principles of these discoveries.

Milk, for example, has been accepted universally as a necessity for life since the Year 1, yet it is within the last few years that added interest has been developed in milk by-products. These deal particularly with animal feeding. As the large creameries are located in or near the cities and away from the stock farms where such creamery products as buttermilk could be used to advantage in stock feeding, it has in the past been too expensive to attempt to ship the products back to the farms and consequently millions of gallons have been thrown away, although it was known to have excellent food value.

In the past seven years two buttermilk products have been placed on the market in commercial form, convenient to handle and ship. The benefits of buttermilk are in the solids and by removing the water, the remaining solids take on added value in proportion to the amount of water removed.

One of these buttermilk products, sold quite extensively, is condensed buttermilk containing 30 per cent solids and 70 per cent water. It is packed and sold in tight barrels to poultrymen and hog raisers for mixing in feeds.

The other form is dried to a powder similar to powdered milk for human consumption. Powdered or "Dried Buttermilk" as it is known, contains about 96 per cent solids and 4 per cent moisture. When properly dried and ground, this product is the color of cream and the consistency of corn meal. It is usually packed in burlap bags and will keep indefinitely under ordinary conditions, although it may absorb some moisture, especially in damp climates. This causes it to cake slightly if held any length of time but it does not injure the food value.

Due to the low moisture content, dried buttermilk has far greater strength than is realized by the average feeder. It is over nine times richer in protein and almost twice as rich in fat as whole milk. The figures given below show comparative values of milk and milk by-products compiled from a large number of analyses:

	Moisture %	Protein %	Fat %
Whole Milk	86.4	3.5	4.4
Buttermilk	90.6	3.5	.6
Condensed Milk (30 per cent Solids)	70.0	11.0	2.0
Dried Buttermilk	4.0	34.0	7.0

Both condensed and dried buttermilk contain from 4 per cent to 6 per cent lactic acid, which is an excellent appetizer as well as having medicinal properties.

In feeding rich articles like dried buttermilk, it should be born in mind that overfeeding may prove more injurious than beneficial. All rich articles should be fed sparingly. A good example of this came to my attention recently in a test conducted by an eastern poultryman. This test was run on two large pens of poultry, both pens receiving the same general feed, one with the addition of all the condensed buttermilk (containing 30 per cent solids) that the birds would eat, the other pen with dried buttermilk the amount used being equivalent in weight to the amount of condensed buttermilk consumed. In addition to this, the birds had a liberal amount of meat scrap (in fact a much greater amount than was needed in combination with milk). The results were in favor of the pen fed condensed buttermilk, due entirely to one thing, over feeding. The amount of dried buttermilk used was so great that instead of being a benefit, it was an injury, besides adding greatly to the cost of the feed. I am also acquainted with the quantity of every article used and in my opinion one-third the quantity of dried buttermilk and one-half the amount of meat scrap would have given a much better ration which would have developed greater egg production at less cost, as well as lower mortality.

In my use of over 4,500 tons of dried buttermilk in high grade manufactured feeds, during the last seven years, I have devoted much time to the development of a standard method of balancing feeds and have instituted many tests to prove my work. A few of these may be of interest:

A baby chick mash containing 10 articles and analyzing 14 per cent protein, 4 per cent fat, fed to incubator chicks increased them to 1¼ pounds in six weeks.

An egg mash with 10 ingredients, guaranteed 17 per cent protein, 4½ fat, prepared especially for body maintenance and high egg production, resulted as follows: (We quote from original letter of recommendation.)

> "I have checked up my egg record for the first three weeks of September, during which time I used your scratch and mash feed and I find my flock showed a remarkable increase, the average of the last three days of the test over the first three showing 137 1-3 eggs per day increase, or 70 per cent gain. In addition to this my hens are laying the largest eggs I have ever had, weighing over 26 ounces to the dozen. The pullet eggs went from 19 ounces to 22 ounces on these feeds."

A hog feed containing eight articles and guaranteed 16 per cent protein, 4 per cent fat, fed to pigs weighing 90 pounds at start, gave an increase of four pounds per day for 10 days. Five baby pigs with combined weight of 36½ pounds at start, grew to 219 pounds in 58 days.

A dairy feed containing 10 articles and guaranteed 20 per cent protein, 5 per cent fat, prepared especially for added milk production and body maintenance, in one case averaged one gallon of milk per day per cow for the entire herd. Previous to the test, they had been fed bran, middlings and grain screenings, together with a poor grade of hay, hence they responded to a good feed very rapidly.

It has been proven that a variety of from seven to ten articles in a feed, combined with meat by-products and milk products, will produce remarkable results. However, the variety must be in proper proportions or the benefits are lost.

The large feed manufacturers of today conduct laboratories and have chemists busy constantly testing their feeds to insure proper chemical analysis, food value and digestibility. Cost is not always the prime factor in purchasing feeds. Consider the added results obtained from high quality feeds and you will see that often the high priced articles will in the long run prove the cheapest.

The feed mill at Bloomington, Wis., has been purchased by Jack Welsh.

C. L. Campbell has started a feed and flour brokerage business at Newport, Ark.

To manufacture and deal in feed, dairy and poultry feeds, flour, etc., the Clover Mill & Elevator Company has been incorporated at Hoyleton, Ill.

Its capital stock is $20,000. Fred Lucking and A. K. Fricke are interested.

The feed store of J. H. Melton at Unionville, Mo., has been purchased by Asa Barnes.

Arthur Ramsey has purchased the feed and flour business of William Geiger at West Conshohocken, Pa.

The feed and flour business of L. N. Freeman at Morley, N. Y., has been sold by him to William Newby.

The feed store of J. I. Husler at Finleyville, Pa., has been taken over by H. B. N. Loutitt of Monongahela.

A feed store in which he will handle all kinds of feed and flour has been opened at Linton, Ind., by John Bennett.

A partnership has been formed at Algona, Iowa, by W. A. Dutton and D. L. Leffert to conduct a feed and flour business.

The Emrick Feed Store at Delphi, Ind., has been purchased by Robert Baum. He is now in possession of the business.

The new feed mill of Edward Westover & Sons at Waukau, Wis., has been completed. The company is now grinding feeds.

A new feed store is being erected at Ironton, Ohio, for the Markin-Blanton Company replacing the one which burned.

A feed, flour and provision business is to be conducted at Augusta, Ga., by Chandler & Co., which was recently organized.

Charles W. Young's feed store at Shelbina, Mo., has been purchased by Arthur Howell. He will take possession next spring.

William Kinney and G. B. and H. J. Gould have incorporated at Mt. Vernon, Wash., under the name of the Gould Feed Company.

A new addition is being erected to the plant of the D. T. Hart Wholesale Grocery & Feed Company at Fort Lauderdale, Fla.

The name of the Bellingham Feed & Seed Company operating at Bellingham, Wash., has been changed to that of George J. Hohl Company.

A wholesale and retail feed business has been opened at Lincolnton, Ga., by J. H. and J. E. Deason. They will handle feed, cottonseed meal and coal.

Capitalized at $50,000, the Corn-Alfalfa Feed Mill has been incorporated at Oakland, Neb. J. C. Arthur and M. A. Weaver are interested in the firm.

A brokerage business has been opened at 111 W. Washington Blvd., Chicago, by Donald B. Fraser who will deal in cottonseed meal, cake and feed products.

The Ellsworth Feed Company of Woodward, Okla., has increased the capacity of its house considerably recently by the construction of an addition to it.

A large warehouse has been leased at Fort Smith, Ark., by the recently organized Southern Flour & Feed Company. D. Graves is president of the concern.

To conduct a wholesale feed and flour business at Hamilton, N. Y., the D. G. Stark Company has been incorporated. D. G., R. F. and M. E. Stark are interested.

The feed business and property of R. G. Allison at Ambridge, Pa., have been purchased by William Wall. He will enlarge the business to include flour and other products.

S. Clouse & Sons' feed business at Pottstown, Pa., has been purchased by Irving S. Shaner of Saratoga, Pa. It will be conducted under the name of I. S. Shaner & Son.

R. S. Blake is now with the Purina Feed Mills to travel in South Carolina for it with headquarters at Greenville. He was formerly professor of animal husbandry at Clemson College.

The property of the Morgan Elevator Company at Elk River, Minn., has been purchased by the Morgan Feed Company, Inc., and is being operated under the name of the purchasing concern.

A new warehouse and mixing room is to be built at Concordia, Kan., for Quincy Blosser and Bert Ainsworth who recently purchased a hog and poultry feed manufacturing business there.

A wholesale Alfalfa, hay, grain and millfeed business has been started at Kansas City, Mo., by J. P. Campbell who at one time was connected with the Lama Alfalfa Milling Company of Lama, Colo. His offices are in the Livestock Exchange Building.

Extensive improvements have been made to the feed mill of Tofte & Joitel at Stoughton, Wis. The old mill and gas engine have been disposed of and a modern, electrically driven feed mill has been installed. The capacity of the mill is from 7,000 to 8,000 pounds per hour.

Clarence Eklon and Joe Cunningham have revived the old firm of Cunningham & Son, wholesale and retail dealers in feed, poultry and eggs, at Canton, Ill. They have taken over the business formerly conducted by J. S. McMilland and the Duncan Poultry Company at Canton.

COAL

DANGER OF SHORTAGE PAST

On August 29, H. B. Spencer, Federal Fuel Distributor, stated that the danger of a widespread closing of industries for lack of fuel had passed. With current soft coal production then running at the rate of 7,400,000 tons a week, advices were sent out by the central board to the district organizations to be prepared for disbandment.

COAL STORING PROBLEMS EXPLAINED

O. P. Hood, chief mechanical engineer for the Bureau of Mines, is author of a bulletin just issued by his department at Washington, on the storage of coal and the attendant problem of spontaneous heating. While coal may be somewhat difficult to obtain just at the present time, evidently the Bureau of Mines believes that it will not be long before present conditions pass. This publication is a truly valuable one to all wholesalers and retailers of coal. It is known as Technical Paper 311, and may be obtained by application direct to the Bureau of Mines, Washington, D. C.

COAL EXPORTS FROM UNITED KINGDOM

Trade Commissioner Alexander V. Dye, in dispatches to the Department of Commerce from London states that the American demand for British coal that has sprung up recently has been a very welcome relief to the coal trade. Previously, the output in the United Kingdom has been steadily declining for about six weeks. Prices, also, had been dropping until they had reached as low as 24s 3d per ton for best admiralty steam Welsh. It is very difficult to make any accurate estimate of the amount of coal which has been actually sold for American shipment, but it is probable that it will run somewhere between 750,000 and 1,000,000 tons.

OUR PLACE IN WORLD COAL PRODUCTION

Recent developments in the coal industry of the United States lend interest to some figures of world coal production and consumption by the Trade Record of The National City Bank of New York. They show that the United States, which has more than one-half of the underground coal of the world, supplied 42½ per cent of the world's coal output from the beginning of the war to the end of 1920 as against an annual average of about 38 per cent in the years preceding the war. In 1921, however, with the big fall off in output, the United States supplied but about 40 per cent of the world's coal production, though in the immediately preceding year, 1920, America's share of world production was 45 per cent.

SHORTAGE IN ANTHRACITE

The country's normal supply of anthracite coal is already short approximately 30,000,000 tons as a result of the five months' suspension, according to the statement issued early this month by the Coal Bureau of the Chamber of Commerce of the United States.

According to the statement, "the normal yearly production of anthracite coal suitable for household purposes is about 72,000,000 tons. As it is possible to store anthracite safely for long periods, the industry is organized to run with fair uniformity throughout the year. It is the custom of producers, dealers and many domestic consumers to accumulate supplies in the summer and fall against winter needs. As the productive capacity of the anthracite mines is sufficient to take care of this uniform demand only, it is apparent that any interruption in the regular production during the summer months is bound to create a shortage which cannot be overcome."

LEGAL FIGHT OVER MUNICIPAL COAL YARD

The legal fight over the municipal coal yard at Lincoln, Neb., which has been presided over by Charles W. Bryan, brother of the famous William J., has reached another stage. The Consumers Coal Company, of Lincoln, took the case into court, alleging that the municipality had no right to engage in the retail sale of coal, and setting up that such retailing was not a proper use for tax monies, and further that in this particular case that the city charter did not permit its establishment. The company lost in the lower court, but appealed to the Supreme Court of Nebraska, which reversed the decision and remanded the case to the District Court, with instructions to enter a decree perpetually enjoining the city from conducting a fuel business under the city ordinances.

As a sidelight on the situation it might be noted that Mr. Bryan closed his municipal yard on March 31, until October 2, leaving the responsibility of caring for the fuel needs of the city, during the spring and summer, on the regular dealers, which the municipal yard was bucking.

EMERGENCY COAL AND OIL MIXTURE

Fuel oil can be mixed with fine coal and used with good results in hand furnaces, according to the United States Bureau of Mines. A statement by the Bureau says: As an emergency fuel, a mixture of fuel oil with fine coal in as large proportions as the coal will absorb and hold is suggested by the United States Bureau of Mines to steam coal users and gas manufacturers to augment their fuel supply during the present shortage.

"Slack coal that has a high percentage through an 8-mesh screen, or which may be crushed to sizes of one-eighth inch or less, will take up in oil from 30 to 40 per cent of its own weight and make a fuel high in calorific value. Coarse slack coal, however, as judged by a representative sample from the Pittsburgh market, will absorb oil to only 3 to 10 per cent of its own weight, which would give a fuel having only about 4 to 15 per cent increased heating value. The finer the size of the coal, therefore, the larger is the amount of oil which will be held. Tests made by the Bureau of Mines at its Pittsburgh experiment station indicate that the mixture can be made with either bituminous slack or anthracite culm.

The coal sheds of the Atlas Elevator Company at Ferney, S. D., is to be rebuilt.

The Middletown Grain & Coal Company at Middletown, Ill., has been dissolved.

Coal is no longer handled by the Farmers Elevator Company at Roland, Iowa.

New coal storage bins have been built for the Farmers Elevator Company of Chaffee, N. D.

A new coal shed and warehouse are being constructed at Potter, Neb., for the Potter Grain Company.

New coal storage sheds have been completed at Mulhall, Okla. by the Farmers Co-operative Grain Company.

The grain and coal business of L. J. Hoesel at Leiter's Ford, Ind., has been purchased by Blue & Tinbey.

The retail coal and grain business of Newman & Smith at Cynthiana, Ind., has been purchased by Harry Deig.

E. E. Moyer is succeeded as manager of the Aurora Grain & Coal Company at Aurora, Kan., by A. L. Key.

The retail coal and grain business of R. & C. I. Lefevre at Rosendale, N. Y., has been purchased by Albert Jeghers.

The coal storage bins of the Southwestern Elevator & Mercantile Company at Hardtner, Kan., are being remodeled.

Jacob Ritter of Centerville has purchased the Dennis Grain Company's coal sheds and grain elevator at Humeston, Iowa.

The coal, feed and produce business of G. K. Christenson of Exira, Iowa, has been sold by him to Northrup & Young Company.

The business of the Ranney Grain & Coal Company at Sioux Rapids, Iowa, has been purchased by George D. Strom of Sac City.

A general coal, lumber and feed business has been purchased at Doylestown, Pa., by Albert S. Thompson from Horace T. Myers.

Extensive improvements have been made to the Farmers Elevator Company's house at Rutland, N. D., including new coal storage bins.

The retail coal and lumber business of the Concord Milling Company at Concord, Mich., has been purchased by A. Wilder & Son of Albion.

J. J. Calaghan, S. E. Geyer and E. J. Keller have incorporated at Barnard, S. D., as the Barnard Grain & Coal Company. Its capital stock is $15,000.

The retail coal and lumber business of the T. M. Deal Lumber Company at Montezuma, Kan., has been purchased by the Farmers Grain & Lumber Company.

The coal and feed business of the Biddison Coal & Grain Company at Leon, Iowa, has been purchased by L. H. Horner. The Biddison company retains its elevator.

The retail coal and grain elevator business of A. E. Betts & Son at Forest, Ind., has been sold by them to the Sellers Grain Company of Fairland. They are now located at Muncie, Ind.

The retail coal and grain business of B. F. Noftsger at Rochester, Ind., has been purchased by A. S. Wynn. Mr. Noftsger has retired from active business; Mr. Wynn has been his assistant for some time.

The firm of Flinn & Schluttenhofer has been opened at Earl Park, Ind., by John Flinn, Sr., W. L. Flinn and C. Schluttenhofer. They have purchased the grain elevator and retail coal business of the Farmers Elevator Company from Receiver Ed. Childers.

FIELD SEEDS

CLOVER SEED IN OHIO

According to the statisticians of the State-Federal Crop Reporting Service, the acreage cut for Clover seed in Ohio this year is 30 per cent greater than last year. The yield per acre will be from 15 to 25 per cent greater than last year and will not be far from 1.4 bushels per acre. The greatest increase in acreage cut is in Red Clover, with a good increase in Alsike, but only slight increase in Timothy.

SEEDS IN STORAGE SHOULD BE INSPECTED FOR INSECTS

During the summer, insects begin to multiply rapidly. This is particularly true of those attacking seeds in storage. A careful inspection in time may save the owner of seeds much worry and loss later. Although heating seeds to a temperature of 120° to 130° F. for a comparatively short time has been found an excellent method of killing insects, there is nothing more valuable in the average seed warehouse than scrupulous cleanliness.

TOLEDO SEED STOCKS

Stocks of principal seeds at Toledo, as of September 1, for the past 10 years, are officially reported as follows:

	Red Clover	Alsike	Timothy
1922	3,671	6,257	17,679
1921	2,850	4,328	23,444
1920	4,893	1,781	75,153
1919	1,157	3,802	69,654
1918	1,169	5,172	77,945
1917	26,458	5,053	31,067
1916	11,497	3,785	8,072
1915	8,497	6,820	6,541
1914	6,951	6,630	7,836
1913	1,115	58	10,700

NEW CROP BUR CLOVER

From 75 to 90 per cent of the new crop Bur Clover seed in the Southeastern States has moved from growers' hands according to reports received during the week ending September 2. Prices being paid range $6-$10 per 100 pounds screened which is about the same as those prevailing around August 1. The local demand this season is reported to be greater than last year and normal in many producing sections because farmers are appreciating the value of Bur Clover as a soil improver. A heavier than normal demand from other sections has been experienced by dealers. This is attributed largely to the comparatively higher price of Crimson Clover and Vetch seed.

QUALITY IN ALFALFA SEED

Quality of Alfalfa seed, says a recent bulletin of the Utah Experiment Station, may be determined approximately by observing the color, the plumpness, and the number and kind of weed seeds it contains. Seed of a bright yellow color with an occasional tint of light green is best, for this indicates maturity. Stains of any sort indicate weakened vitality, particularly if many seeds are decidedly dark brown or even reddish brown. Well-matured seed may become badly discolored if thoroughly wet during harvest. A distinctly green color indicates lack of maturity or frost injury. Seed will be of a bright yellowish color only when properly matured and properly harvested in favorable weather.

Immature seed may be badly shrunken, but usually it will also be dark-colored or distinctly green. Immature seed, or mature seed that has been discolored by wet weather, is usually low in power to germinate. Moreover, the seeds that do germinate are likely to produce sprouts too weak to start proper growth. Bright seed that is too old will take on a dull color and gradually change from yellow to brown. Vitality ordinarily decreases about in proportion as the brightness fades and the color darkens.

WEATHER FORECASTS INCREASE PROFITS OF ALFALFA SEED GROWERS

Forecasts of weather conditions for Alfalfa harvest are widely distributed in the West, particularly in Oklahoma, where 2,000 or more growers receive the forecasts through the local agents of the extension service of the United States Department of Agriculture. In Utah a rather limited but important frost-warning service for Alfalfa-seed growers is in operation.

Seed is largely grown from the second crop, and if the season is late the harvest and fall frost periods come close together. As the seed crop increases in value at the rate of about $5 a day for each acre of seed when nearing maturity, the growers let the seed stand as long as possible. When temperatures low enough to cause damage are predicted by the Weather Bureau it is not unusual for the seed growers to run their cutting machines most of the night.

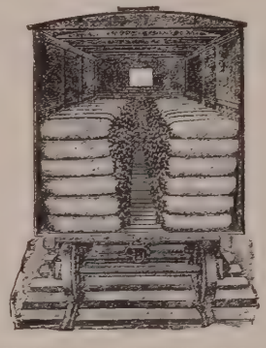
In one section of Utah during a recent harvest season fully 500 acres of seed were cut after receipt of the warnings, at an average saving of $20 to $30 an acre. Two of these growers reported that they saved at least $2,000 as a result of the weather information furnished by Uncle Sam concerning frost conditions.

NEW FEDERAL SEED BILL

Senator Capper of Kansas last month introduced a bill providing for the establishment of standards for seed and the registration by the Government of seed conforming to such standards. The bill is of highest importance to the seed trade since under it the Department of Agriculture will fix standards which it is assumed will represent the highest classes of seeds. The Department now exercises a certain sort of control over the sale of grass seed, and similar control over other seeds is now planned. In addition to this, the Capper Bill would establish standards for all seeds and permit growers and dealers having seeds which compiled with such standards to advertise that fact.

RECOMMENDATIONS FOR LOADING SEEDS

The seed inspection department of the Chicago Board of Trade recommends the loading of bagged seeds in cars according to the sketch reproduced



APPROVED METHOD OF LOADING SEED IN CARS

herewith. Loading in this manner makes it possible for the sampler to secure a sample from every bag. This method also makes unloading at the warehouse, for sampling, unnecessary, thus saving a considerable amount in charges.

IMPORTS OF FORAGE PLANT SEEDS

The following table gives recent imports of forage plant seeds, permitted entry under the Seed Importation Act:

Kind of seed	August— 1922	August— 1921	July 1, 1922–Aug. 31, 1922	July 1, 1921–Aug. 31, 1921
	Pounds	*Pounds*	*Pounds*	*Pounds*
Alfalfa	1,035,800	852,600	2,588,900	941,800
Canada bluegrass	.....	1,200	.....	2,200
Alsike clover	31,700	317,500	76,000	435,300
Crimson clover	374,700	503,900	385,700	702,100
Red clover	40,800	932,000	226,600	1,676,500
White clover	22,300	141,400	101,300	275,000
Alsike clover and timothy mixture	.....	600	.....	600
White and alsike clover mixtures	.....	5,400	.....	5,400
Grass mixtures	100	.....	100	40,100
Broom-corn millet	162,000	.....	315,400	.....
Orchard Grass	.....	125,800	.....	125,800
Rape	50,700	136,100	417,400	174,600
Redtop	.....	.....	2,200	.....
English rye grass	112,400	.....	196,400	16,300
Italian rye grass	77,500	.....	77,500	13,800
Timothy	.....	5,900	.....	95,100
Hairy vetch	50,000	256,900	141,900	365,200
Spring vetch	65,500	8,800	76,300	8,800

RED AND ALSIKE CLOVER SEED PRODUCTION LARGER

The 1922 crop of Red Clover seed is estimated to be about one-third larger and the Alsike Clover seed crop one-sixth larger than the respective crops last year, according to the last weekly bulletin of the Department of Agriculture. The increased production was due both to a larger acreage and better yield per acre in most of the heavy producing sections. The weather prior to and at harvest time was generally favorable, but in some regions recent hot, dry weather, similar to that of last year, has reduced yields considerably.

A number of correspondents have indicated that meadows which had a luxuriant growth did not give promise of yielding much seed because a larger percentage of the florets than usual were without seed. This condition exists each year to a more or less extent and is not believed to have been prevalent throughout the producing sections. Not enough of the Medium Red Clover, however, had been threshed by the end of August to corroborate the estimates of yields which were obtained.

REDTOP SEED MOVING SLOWLY

About 25 per cent of the 1922 crop of Redtop seed had been sold by growers up to August 30, according to advices received by the Department. There is a disposition on the part of growers to pool their seed because prevailing prices of 14 cents-15 cents per pound for recleaned seed, which are about 1 cent lower than last year on the same date, are not satisfactory to them. The movement this year is below normal and below that of last year when approximately 45 per cent of the crop was sold by August 30. There seems to be but little difference in the quality of the seed from that of last year. During July and August approximately 140,000 pounds of Redtop was exported from New York to Germany and Great Britain.

A SEED WHEAT EXCHANGE CAMPAIGN

The Southwestern Wheat Improvement Association, from its headquarters at Room 210, New York Life Building, Kansas City, Mo., has inaugurated a seed wheat exchange campaign throughout the territory it covers whereby arrangements have been made so that in districts where seed is needed, the local elevator or mill will have on hand a supply of seed which can be bought or exchanged. The Association is acting as a clearing house for locating available surplus stocks of seed wheat, and supplying it to such places as it is needed.

The Association has just issued an attractive seed wheat poster, which is being widely distributed through colleges, county agents, state boards of agriculture, railroads, mills, elevators, the Federal Reserve Bank, implement houses, Boards of Trade, grain dealers' associations, bankers' associations, Chambers of Commerce and various individuals.

CANADA AS SEED GROWING COUNTRY

BY EARLE W. GAGE

Professor Boving, the noted seed specialist of British Columbia, sometime ago advised that after a long series of experiments and extensive investigations he had arrived at the definite conclusion that Canadian grown seed had stronger germination than that grown farther south. In other words, his researches and scientific experimentations had conclusively demonstrated that seed grown on Canadian land assured greater propagation and larger and more sturdy crops than that brought to maturity on parts of the American continent farther south.

Previous to this, there were not wanting indications that farmers and seedsmen from various parts of the United States had arrived at the same conclusion as Professor Boving, though not as a result of scientific research, but from hard and long experience. Farmers and seedsmen from the central American states have purchased seed for cereal crops from the prairie provinces.

For some years, too, the prairie provinces have shared between them the first prizes in the wheat championships at International Fairs, and the seed shown there and grown on the same plots has been disseminated all over the American continent and formed the basis of largely augmented yields over a very wide area. The names of Marquis Wheat and Seager Wheeler are synonymous.

In the spring of 1916, 100 bushels of 16-rowed barley imported into Alberta from Idaho, where the variety has been grown and improved on for a number of years and was well known as the highest yielding barley in the state. Grown on 25 acres at Tilley and Bassano in southern Alberta, it yielded 75 bushels per acre. Just to find out what could really be done with this southern seed, plots were sown in 1919 on the Dominion Experiment Farms at Lacombe and Lethbridge in Alberta, with the result that in the central area a yield of 114 bushels was obtained, and an almost equally phenomenal production recorded in the southern districts of the province, or 109 bushels per acre.

In the irrigated districts of southern Alberta, striking success has been achieved in the production of various crops for seed, notably with Alfalfa. Alfalfa seed from Brooks took first prize at the Kamloops Fair against competition from all over America. It came from a field of 12 acres which yielded 14 bushels per acre. R. W. Shepherd, manager of one of the largest irrigation projects in the State of Idaho, who inspected the seed, said that it was far superior to any he had seen in that state or that he believed could be raised there.

It has been a generally prevalent belief that European grown seed of field roots was superior in producing power to seed raised in America, and consequently we had been importing a great deal of European field root seed. But the war opened our eyes to the truth, when we faced the proposition of either growing our own or going without. To test the

substantiality of this, experimentation has been undertaking during the past few years, and has resulted in the conviction that Canadian grown seed is fully capable of competing with imported continental stock in crop producing ability and, indeed, in many cases, has proved decidedly superior. This will doubtless result in greater faith in home grown products and their qualities of propagation, and in the keeping of another industry within the confines of America.

Careful and intelligent selection of seed practiced by thinking and longsighted Canadian farmers has brought the quality of Canadian seed to a high standard. This, coupled with the hardy germinating properties of soil and climate, has placed the Canadian product of cereal and other crop seeds in the first rank. At the present time, a valuable and extending market has been developed through the universal demand for Canadian seed, and other lands are coming to the Dominion to restock their agricultural areas.

SEEDS IRREGULAR IN NEW YORK

BY C. K. TRAFTON

Somewhat abnormal conditions have prevailed in the market for field seeds during the month under review, largely because of two factors which, fortunately, are distinctly unusual, namely: The railroad labor troubles and the uncertainty regarding the inauguration of the new tariff. Of the two the latter was undoubtedly the most disturbing. In fact, little was heard of the alleged rail strike, although some complaint was heard of difficulty of moving goods. This, coupled with fears that the higher duties on imported seeds would soon go into effect, made some buyers more anxious to secure spot seeds, but, on the other hand, the prospective increased importing costs has interfered somewhat with business for future shipment from foreign countries. Under the circumstances, it is by no means strange that prices again show decidedly irregular changes, about half the list being lower while the others are higher.

Crimson Clover was prominent among those to advance, scoring additional gains of roughly 3 cents. This applies entirely to spot goods as supplies have become extremely light, in spite of the fact that 1,500 bags arrived from France compared with only 300 during July. On the other hand, as the season for importing is over, the foreign market has weakened sharply, offers being received from France at 14 cents c. i. f. New York, compared with 17½ @ 19 cents a month ago. A few bids slightly below current quotations have been sent over in spite of the lateness of the season.

Red Clover has been lifeless locally and the price is about 2 cents lower. There have been no arrivals from Europe and practically no offers have been received from France, Italy or Germany. Owing to the inability of the Continent to export, dealers here report some demand from Great Britain.

White Clover was again extremely strong, making a further gain of 5 cents. Arrivals were slightly larger, about 335 bags, against 255 during July. Nevertheless, supplies have been inadequate as dealers are still eager to anticipate their spring requirements because of the poor advices from Wisconsin. In addition, the foreign situation continues decidedly strong.

Alfalfa spot prices are about 1 cent higher as dealers in the West as well as on the seaboard have been eager to stock up before the new duties become effective. Moreover, latest advices make it plain that the domestic crop is not as large as had been hoped and may, in fact, be below normal. On the other hand, the threat of higher duties has checked business for future shipment from Argentina. That country is not offering freely and is quoting 12 cents for fair average quality, or about the same as a month ago. The month's arrivals aggregated about 8,800 bags, compared with 6,310 for the preceding month. Argentine reported sales for shipment to France, thus confirming claims that French seed crops were short.

Rapeseed has become slightly firmer as spot prices have been below a parity with European quotations. Spot seed is quoted in a large way at 6¼ cents, whereas Holland is offering sparingly at 8 cents c. i. f., while France still quotes 7½ cents. In view of these prices it is not expected that the Orient will continue offering at the present low figure (5¼ cents c. i. f. Pacific Ports) much longer. Arrivals were 575 bags, against 78 during July.

Fancy Kentucky Bluegrass has been virtually unchanged at the lower levels established last month. At those figures a fairly good demand for export developed, resulting in some business. Canadian Bluegrass has been inactive and about 1 cent lower.

Rye Grass has gained about 1 cent in spite of much larger arrivals, about 1,312 bags, compared with 410 during July.

Vetch has remained firm owing to the further advance in Crimson Clover and meager stocks. The month's arrivals were 200 bags.

The Sunflower situation has been changed radically by the fact that the domestic crop has been offered at 5 to 5¼ cents seaboard, whereas the spot quotation a month ago on imported seed was 5¾ to 6 cents. Among some unbiased dealers, however, the opinion prevails that this easiness is only temporary. It is traceable partly to the fact that about 2,780 bags were received during the month from Europe, the quality of which was not choice and had a tendency to depress the market. Those who predict much higher prices before winter assert that the quality of the domestic seed is not as good as last year's and nothing like liberal offerings can be expected from Argentina before January. In fact, that country is offering practically nothing at present. The arrivals from there during the month were about 4,260 bags, making the total imports about 7,050 bags, against 3,065 during July.

Canary seed has been in fairly good demand, and hence prices have remained steady. Spot stocks have continued light, although arrivals were close to 1,300 bags, against 827 in July.

Timothy and Redtop have each lost about a half-cent. Exports were reported of 373 bags of Redtop to Germany and of 200 bags of Timothy to the United Kingdom. Orchard Grass has declined about 1 cent. There were no arrivals. Sweet Clover has advanced about a half-cent.

The month's arrivals included about 1,100 bags of millet, chiefly from Japan; also 260 bags of fescue from New Zealand, against 1,300 during July. That country also sent 520 bags of rye grass, which was included in the total of 1,312 mentioned above.

RECENT NEWS OF MILWAUKEE SEED MARKET

BY C. O. SKINROOD

The receipts of Clover and Timothy seeds at Milwaukee during the month of August show a decided decline from last year, according to the figures compiled by the statistician of the Chamber of Commerce. The receipts of Clover seed for the past month were only 197,785 pounds as compared with receipts for the same month a year ago of 564,325 pounds. Receipts in August, 1921 were about three times as large as for August this year.

Shipments of Clover seed at Milwaukee for the past month were 575,951 pounds as compared with 726,166 pounds for the corresponding month a year ago. Shipments were therefore about one third less than last year. Shipments of Clover seed for last month were also about three times as large as the receipts for the same month.

Receipts of Timothy seed for the past month were 144,238 pounds as compared with receipts a year ago for the same month of 1,359,647 pounds. These figures indicate that the Timothy movement this year has been very light for August, in fact it was only about one-tenth as large as the receipts for the same month of 1921.

Shipments of Timothy seed at Milwaukee for the past month were 281,035 pounds as compared with shipments for the corresponding month a year ago of 109,160 pounds. Shipments of Timothy seed last month were therefore more than double those of last year; they were almost exactly twice as large as the receipts for the same month.

In general the trade in seeds for the past month shows small receipts of both Timothy and Clover and fairly large shipments, especially of Clover seeds.

The official report of the seed market of Milwaukee for the past month as issued by the Chamber of Commerce says there were recessions of $2 in Red Clover and $3 in White, while Alsike fell back only $1 and there were few changes in Timothy. In general the report adds that the crop promise has been well maintained and buyers are indifferent at the present time, taking goods only from hand to mouth for the most part. Red Clover at

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the time of writing this report was quoted $12 to $18, Alsike ranged from $11 to $16, White Clover went at $32 to $40, No. 1 Northwestern flax sold at $2.40 to $2.75, reflecting a decline for the month of 35 cents; poor to good Timothy was quoted at $4.25 to $5 and the choice to fancy from $5.25 to $5.50.

The demand for seeds is reported as slow by the Milwaukee Seed Company with buying very largely of a hand to mouth order. It is suggested that the usual buyers of seeds may not have the money to buy normally. The company reports good rains have visited at least part of the Wisconsin seed belt recently, but it is not yet certain that these rains were widespread enough to benefit the entire seed raising area of the state. Before these rains the southern part of the state reported very dry conditions in many counties.

The crop of Alsike seed is said by the Milwaukee Seed Company to be larger than expected at first. There is also reported a considerable carry-over of Alsike, so that no scarcity of seed of this kind is expected. The Alsike yields in the southern part of the state are placed at about 1½ bushels to the acre, while the northern parts of Wisconsin had a much better yield with 2 to 4 bushels an acre. The yield in the upper state is good, while the harvest in the southern counties was rather light.

As to Alfalfa, the company reports that there is still plenty of the South American seed offered at 16 cents a pound, while the Turkestan is quoted very largely at 12 cents a pound.

Red Clover seed is reported to be just beginning to move into the markets, with prices ruling around 14 to 15 cents. As to the much mooted question whether the excessive mildew on Clover this year has hurt the crop, the Milwaukee Seed Company says that all samples of Red Clover seen up to this time have been of very good quality, so that apparently the mildew has not damaged the seed quality, so far as can now be ascertained. The effect of mildew on the size of the yield, however, is not known as yet, the company says.

White Clover is reported to be only half a crop for the most part, with choice seed selling as high as 42 cents due to the scarcity. The range for the White Clover is given from 20 to 42 cents a pound. Timothy is reported to be selling around 5 cents a pound. The company has no reports as yet on the condition of the Iowa Timothy crop.

That the seed trade will look upward and prosper just in proportion to the progress and development of general business conditions, is the belief of the Courteen Seed Company and since business is showing a decidedly upward trend, the seed trade should and will reflect these bright prospects, the company adds. The Courteen company expects a very satisfactory seed trade for the autumn. The quotations as given for the various kinds of seeds are $14 to $15.50 for Red Clover, $35 to $41 for the White Clover, Alsike a range around $12 to $15, Alfalfa a range from $13.50 to $15 and the White Blossom Sweet Clover from $6.50 to $7.50.

The North American Seed Company reports that there is a fair volume of trade in field seed with prices largely at the former levels for most kinds of seeds. As for the crop prospects, the North American Company says that the outlook is that Red Clover seed will be a better crop than last year and also that the quality of the seeds will be somewhat improved, judging from the returns which have been received to date. Differing with some other seed handlers, the company believes that the White Clover yields will be good and that the quality of the seed will also be a high class. Predictions are also made that the harvest of Alsike will be as large as expected with a possibility that the best quality seed yields may be cut down to some extent. The company reports further that the railroad shop men's strike is holding back the shipments of Timothy seed from the West and the North west to some extent. Alfalfa is growing very popular as a good brand of hay in Wisconsin, the company adds, but this state is not of so much importance yet in raising the Alfalfa seed.

There is no White Blossom Sweet Clover on the market as yet from the new crop, the company reports. Its quotations are given at $12 to $16 for the Red Clover, $30 to $41 for the White Clover, a range of $10 to $15 for Alsike and a range of $4.50 to $5.25 for Timothy seed of the various qualities.

The Kellogg Seed Company reports that orders for seed are steadily increasing and that the prospects for fall trade are bright. This company has made some careful investigations to learn whether the tremendous amount of mildew on Wisconsin Clover this year has really damaged the crop as much as some people say. It was found that in the southwestern part of the state, the mildew had apparently been of little or no damage and that the Red Clover seed crop would be likely to be at least up to the average. The company adds that the Red Clover is just getting into the channels of trade now. Considerable White Clover is reported as already coming to the local market. Alsike is said to be in small demand. The range of Red Clover prices is quoted by the company at $14 to $15.50; White Clover ranges from $30 to $40, Alsike is given at $9 to $13.50, Timothy ranges from $4.50 to $5.25, Alfalfa is quoted at $16 and White Blossom Sweet Clover sells from $6 to $7.50.

The L. Teweles Seed Company believes that despite the talk of damage to the seed crop of Wisconsin from various sources, the harvest will be at least up to average and probably better than the average yield. This report is based on statements received from every portion of the state. The quality of seed which has appeared in the market is good, the company finds, and moreover the offerings on the new crop are already of quite liberal volume. The company finds that its business is fully up to the usual amount which is normal for this time of the year. Teweles company quotes Red Clover at $15 to $15.50. White Clover ranges from $35 to $38, Alsike ranges from $11 to $14, Timothy sells at $4.70 to $5.20, Alfalfa at $16 and White Blossom Sweet Clover at $8 to $9.

The Moore Feed & Seed Company has been incorporated to operate at Ashland, Ky. Its capital stock is $5,000.

The warehouse of the Idaho Seed Company at Caldwell, Idaho, is being enlarged by the erection of another story to it.

A new concrete building is to be erected at Flora, Ill., for the Flora Seed & Milling Company to replace the old corrugated iron structure.

The new quarters of the El Paso Seed Company, El Paso, Texas, are now occupied by that firm. It was at its old headquarters for eight years.

Lehman & Waterman, Inc., were recently incorporated at Oxnard, Calif., to deal in beans. Its

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

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capital is $100,000. The company has offices at Los Angeles, Santa Maria and San Francisco. Leon Lehmann is president.

An addition has been built to the warehouse of the Idaho Seed Company at Caldwell, Idaho. The addition consists of a second story over one half of the entire warehouse.

The capital stock of the I. W. Scott Company at Pittsburgh, Pa., is to be increased from $100,000 to $200,000. The vote on this amendment is to take place on October 10.

A retail seed store has been opened at Sioux City, Iowa, by L. Williams who was formerly with the state grain inspection department. He will handle field, flower and vegetable seeds.

The Price Seed Company has been incorporated at Charlotte, N. C., by J. S. Price, M. B. Sinclair and W. V. Price. Its capital stock is $15,000. The company will conduct a general seed business from Charlotte.

To conduct a general seed business, the Walton Seed Company has been incorporated at Jacksonville, Fla. Its capital stock amounts to $10,000. A. Walton is president and treasurer and P. A. Walton, secretary.

Editor American Grain Trade:—Enclosed find check for subscription to AMERICAN ELEVATOR AND GRAIN TRADE one year. Was a subscriber to your paper for two years when I was a resident of the East. The California Bean Growers' Association is building a large bean cleaning plant in this city, and my connection with the organization is manager of warehouse and cleaning department. We keep track of each member's lots of beans received, keeping them separate until sold. As grades are at least five and varieties are as many as nine, it entails some real system. We issue warehouse receipts for the stock.—C. H. BISHOP, 120 Battery St., San Francisco, Calif.

MANY CROPS SHOW SLIGHT DETERIORATION

The condition of many crops has deteriorated since the middle of August, the semi-monthly crop report of September 6, of the United State Department of Agriculture shows. This has been due to excessively dry and hot weather in nearly all sections of the country. In some areas there were welcome showers at the close of the month. In a few sections of the East hail storms have done some slight damage and injury by frost is reported from one county in Maryland. The preparation of the ground for fall seeding has made considerable progress and farm work has gone on satisfactorily, being delayed by weather conditions in only a few localities.

Corn is maturing rapidly in the Southern States and husking has begun in some of these areas. It has suffered more deterioration in the Central and in the Eastern States since the middle of the month and has had a severe setback in Missouri, Kansas, and Nebraska due to excessive heat and lack of moisture. In Wisconsin and Michigan the crop is reported to be maturing slowly and it will not be out of danger from frost damage for some weeks. Chinch bugs have done considerable damage in Kansas and sections within Ohio and Indiana. Much firing is in evidence in Nebraska and hail damage is reported in spots in several of the Atlantic Coast States. Silo filling is on in many states and indications are that the tonnage put in will be large. On the whole the crop has shown further deterioration since the middle of the month although timely rains have helped in spots. Threshing of small grains is practically completed in the Southern States and in the Middle West. The threshing of wheat has slowed up in Kansas due to market conditions and in Kansas and Nebraska there is much more grain reported in stack and bin than is usual at this time. Spring wheat yields in the Pacific Coast States are running below normal and the grain is generally of light weight. In the Dakotas and Minnesota threshing of Spring wheat is under way, yields are generally up to expectations and the grain is of high quality as a whole. Yields of oats have been variable in nearly all sections and the grain averages light in weight though much good grain has been produced in scattered areas. Buckwheat is still in blossom in the Middle West and the crop promises to be generally good.

Hay yields have been large in most sections of the country and second crops are now coming on well except that Clover has suffered in many sections from drouth and will make small yields in such areas. In certain states need for more moisture is great. Due to conditions at harvest the quality of much of the hay crop has not run high. In Oklahoma the Prairie crop is mostly baled and yield and quality is reported to be good. An unusual amount of Cowpea hay has been made in the Southern States. Pastures continue in good condition generally though ranges are drying up in Oklahoma and Texas. The wild hay harvest is now in progress in Kansas and Missouri with good yields reported.

The Addington Grain Company has filed a petition in bankruptcy at St. Joseph, Mo. Its liabilities are $27,965.64 and assets, $15,301.81. The court will appoint a receiver in all probability.

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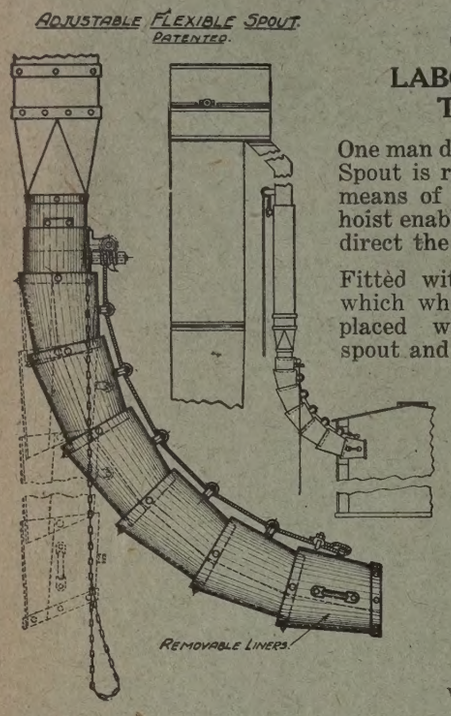

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